A MULTI-MODAL FACILITY
AT WINNIPEG UNION STATION

FEASIBILITY STUDY
PREPARED FOR:
TRANSPORT CANADA &
MANITOBA DEPARTMENT OF HIGHWAYS
AND TRANSPORTATION

PREPARED BY:
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TRANSPORTATION CONSULTANTS

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EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

1.1 OBJECTIVES

The purpose of this report by Gaboury Associates Architects (prime consultants) and DeLCan (De Leuw Cather Western Ltd.), Transportation Consultants (sub-consultants) is to examine the feasibility of the development of a multi-modal center at Winnipeg's Union Station. The study was carried out in four phases.

PHASE I - Analysis
PHASE II - Programming and Examination of Alternatives
PHASE III - Plan Development
PHASE IV - Cost Benefit Analysis

The organization of this report is a collation of the reports carried out for each of the four phases of the study, modified slightly to suit the format of this final report.

A summary of the work and findings of each of these phases follows.

1.2 ANALYSIS

In order to properly assess all aspects of feasibility the analysis carried out was wide ranging covering the following areas:

.1 Urban Design Influences
.2 Site Analysis
.3 Architectural and Spacial Analysis of Union Station
.4 Bus and Rail Carrier Operations
.5 Air Linkage Possibilities
.6 Existing and Future Surrounding Urban Developments
.7 Approach Modes
.8 Local Transit Planning
.9 East Yards Developments
.10 Basic function requirements analysis

One of the most important features of this study is that an eighteen to twenty member advisory committee was formed with representatives from most of the organizations that would have a direct or indirect interest in this study. The organizations represented are as follows:

.1 Transport Canada / Joint
.2 Manitoba Department of Highways & Transportation / Project / Managers
.3 VIA Rail Canada Inc.
.4 Canadian National Railways
.5 City of Winnipeg Board of Commissioners
.6 Airline Representatives
.7 Winnipeg International Airport
.8 City of Winnipeg Planning Department
.9 Winnipeg Chamber of Commerce

- .10 Manitoba Department of Business Development and Tourism
- .11 Winnipeg Transit
- .12 North Portage Development Corporation
- .13 Greyhound Bus Lines
- .14 Grey Goose Bus Lines
- .15 Manitoba Department of Urban Affairs
- .16 Federal Department of Regional Industrial Expansion
- .17 Parks Canada
- .18 Winnipeg Core Area Initiative

A major part of the analysis phase consisted of interviews with each of these advisory committee members to determine their interests, priorities and concerns regarding any Multi-Modal Facility. The result of the analysis phase as well as minutes of the meetings with each of the advisory committee members are found in the body of this report under Phase I - Analysis, and in the Appendix.

1.3 PROGRAMMING AND EXAMINATION OF ALTERNATIVES

Based on the data gathered during the analysis phase Gaboury Associates and DeLCan developed a comprehensive area program for all areas of the Multi-Modal facility. This area program was based on estimates of passenger volumes for the two primary carriers bus and rail for the design year 2005. The tables showing passenger volume estimates and the complete area program are found in the body of this report under Phase II - Programming.

In addition to this programming activity, four alternative layouts were examined in plan form. Since the infrastructure for rail facilities is firmly established within Union Station, the four alternatives dealt with all the possible locations for bus facilities related to the rail facilities within Union Station. The four alternatives are as follows:

- .1 East of the Tracks
  All bus facilities at grade connected to Union Station through the undertrack concourse.
- .2 East of the Tracks
  A denser two level development connected to Union Station through the undertrack concourse.
- .3 West of the Tracks
  A one level layout for bus facilities connected to Union Station through a north wing passenger amenity area.
- .4 West of the Tracks
  A two level bus facility layout with buses connected to a future Southwest Transit Corridor at the second level, connected to Union Station through the north wing passenger amenity area at grade.

All the plans for these alternatives and an assessment of these alternatives are found in the body of this report under Phase II - Alternative Developments.

1.4 CONCEPTUAL PLAN DEVELOPMENT

Through discussions with the Client and Advisory Committee, alternative four was chosen for development as part of this study. Plans of both levels, building sections and preliminary elevations were drawn to fully describe the development plan. An airline link was added to the original bus and rail facility design. The pros and cons of this development were analyzed and outlined as part of Phase III. It is worthy of note that at the time of this study, development plans for the riverbank area of the East Yards were being prepared and available for review. However, plans for CN's portion of the East Yards immediately behind Union Station had not yet developed to the point of plans being available for review.

It was concluded that with the information that was available at the time of the study (especially CN's position discouraging a proposal for a bus development in the East Yards at this time and the bus carriers' functional concerns with Alternate 3) that alternative four was the best of the alternatives for development during this study. It was acknowledged however, that other alternatives may be considered for development at a later time should the situation in the East Yards change.

The development plan that emerged during this phase of the study is the only one that can take advantage of the possibility of the future development of a Southwest Transit Corridor located on the existing right-of-way for Tracks 1 and 2 behind Union Station. Recognizing the uncertainties surrounding the future development of this Corridor, necessitated a variation to the Development Plan that used an alternate bus access route into the bus terminal via ramps from Main Street. If the Southwest Transit Corridor is constructed after the Multi-Modal facility is constructed it would then be possible to tie into the Corridor at that time. This way, the tie-in with the Southwest Transit Corridor can be phased in at the time of the construction of the corridor.

1.5 COST BENEFIT ANALYSIS (PHASE FOUR)

During this phase all costs and revenues associated with this project were examined.

.1 Construction Costs
.2 Renovation Costs
.3 Sitework Costs
.4 Land Costs
.5 Costs for Related Projects
.6 Building Operations Costs
.7 Lease Revenues
.8 Parking Revenues
.9 Miscellaneous Revenues

Using this data DeLCan then carried out a preliminary cost benefit analysis based on the standard developer approach to invested capital and expectation of return. The primary purpose of this analysis is not to present the Clients with a specific development scenario (due to the number of participants and complexity of possible scenarios), but rather to present the analytical cost data in a format that can be used for negotiations at a later stage.

Soft benefits (i.e. those not connected to economics) were also presented during this phase of the study.

1.6 FEASIBILITY CONCLUSIONS

1.6.1 FUNCTIONAL FEASIBILITY

The most basic aspect of feasibility is technical or functional feasibility. One of the chief concerns at the beginning of this study was that the site was too constrained to allow the proper access and movement of buses and still leave room for all the other functions necessary in such a facility. Through the process of developing alternatives and the more detailed development of one of the alternatives, it was determined that functional and technical feasibility of this project is possible on this site without sacrificing efficiency, circulation patterns, or environmental quality.

1.6.2 URBAN PLANNING FEASIBILITY

Although the bus carriers initially had some concerns that this location for their bus terminal was further from the center of the downtown area than their present facility, this location has many positive features and in our opinion is still within the limits of an acceptable radius of the center of the downtown area. Should the Southwest Transit Corridor project be implemented then this is possibly the best location in downtown Winnipeg for the bus depot in that it can use the Corridor as an uninterrupted exit from the City in certain directions. As a physical and visual gateway to the East Yards, this location for the Multi-Modal facility, should considerably strengthen the viability of the East Yards project, as well as transforming the visual barrier of the Mainline tracks to the East Yards into a visual and physical gateway into the East Yards via York Avenue (as indicated in the Main Street elevation of our development plan drawings).

1.6.3 ECONOMIC FEASIBILITY

It is apparent from our analysis of estimated capital, on-going costs and revenues that the development plan as shown would not proceed without some form of financial assistance from the various levels of government. Some of the costs are due to the physical configuration, i.e. the necessity for bus facilities on two levels, due to the characteristics of the site. Given enough land for a one level development, construction costs would be considerably less.

However, this should be weighed against the fact that:

.1 Such land may not be available within an acceptable distance of downtown Winnipeg.

.2 If it is, costs for the additional land for a spread out development may tend to offset the savings in construction costs (dependant upon the price of the available land).

A brief summary of costs is as follows:

.1	New Building Construction:	$16,584,990.00
.2	Renovations:	$ 2,527,040.00
.3	Sitework:	$ 420,760.00
.4	Total Construction Costs:	$19,532,790.00
.5	Total Project Development Cost: (i.e. Total Construction Cost + contingency + consultants fees + project development costs)	$23,635,000.00
.6	Land Costs	$ 4,106,000.00

It should be noted that these are order of magnitude costs only and should be able to be reduced by land cost negotiations, project phasing, design refinements, and other means available to the various levels of government.

These costs should also be weighed against the negative aspect of a bus depot development at other sites in the downtown area (if any) and against the positive benefits to be derived from a Multi-Modal facility at this location.

It is technically possible, although not functionally desirable to stage the construction of the facility if funds are not available for implementing the complete project. The stages and costs (including land costs) can be summarized as follows:

Stage 1:	Bus Facility without Bus Deck Roof	$17,525,000.00
Stage 2:	Union Station Renovation	$ 3,219,000.00
Stage 3:	Bus Facility Completion	$ 2,890,000.00

Potential revenues were also examined in the Cost/Benefit Analysis. Estimated revenues from new and renovated commercial space and from underground parking use were prepared. Other smaller potential sources of revenue were identified. The potential revenue to be received by the bus terminal's main tenants, Greyhound and Grey Goose, has not been estimated in the report as this will have to be identified in subsequent phases.

A brief assessment of the economic impact of the construction of the terminal is made. Construction related direct and indirect employment benefits are estimated.

We have attempted to present all of the pertinent data related to a Multi-Modal development at Union Station as well as a comprehensive and clear statement of all the pros and cons of such a development. It is our opinion and conclusion that this development merits the careful consideration of all aspects of the project as presented in this report, by the rail carriers, bus carriers, airlines and all levels of government in order to determine the relative feasibility of this project from their own perspectives.

PHASE I
DATA GATHERING AND ANALYSIS

2.0 DATA GATHERING AND ANALYSIS

2.1 INTRODUCTION

As required by our client's terms of reference for this study, the aim of the study is to:

a) Determine the level of demand for a Multi-Modal Transportation Centre for Winnipeg;

b) Assess the level of integrated functional plans and prepare development plans;

c) prepare a cost/benefit analysis of a multi-modal facility, in relation to the travelling public, the carriers, and the citizens of Winnipeg.

The approach that we outlined in our proposal is to divide the study into four phases:

Phase 1) Data gathering.

Phase 2) Program development and identification of alternatives.

Phase 3) Development of physical and operational model based on preferred alternatives.

Phase 4) Cost benefit analysis of development model Preparation of final report.

Our proposed work plan for Phase 1 involved the following tasks:

a) Gather existing reports and plans for other Multi-Modal facility proposals.

b) Gather plans of the existing bus and rail stations in Winnipeg.

c) Review the adequacy of existing space in both stations.

d) Review previous data gathered in reports of related projects previously carried out by Delcan and Gaboury Associates.

e) Review factors involved in site planning at Union Station.

f) Gather passenger traffic statistics from bus and rail carriers.

g) Identify factors involved in the assessment of feasibility.

h) Interview key agencies that would be involved in a Multi Modal facility to identify their priorities, concerns and possible degree of involvement in the development process.

2.2 SUMMARY OF PHASE 1 - WORK

2.2.1 INFORMATION GATHERING - PLANS, REPORTS, DATA

2.2.1.1 VIA RAIL - CN

Gaboury Associates:

Plans of the existing station have been gathered and are included in this report. A tour of the building was carried out noting location of functions and operational flow as presently existing. Previous reports on the station have been gathered and checked to review the status of the information contained in those reports.

DeLCan:

- Existing train arrival and departure schedule including points of origin and distinction
- Existing arrival, departure and through passenger volumes
- Daily and yearly passenger volumes and daily, weekly and yearly volume peaking characteristics
- Five and ten year passenger volume forecasts
- An assessment of the eye of their existing station space and requirements and an estimation of future needs (with respect to ticketing, waiting, administration, baggage etc.)
- Existing and future volume of freight if applicable
- Any additional facilities they feel they would not need in a Multi-Modal facility
- Identification of existing and future number of station employees, parking stalls and service vehicles

2.2.1.2 EAST YARDS

Plans of the existing layout of buildings and facilities were gathered. The existing functions in each of the buildings was reviewed.

A plan layout that formed part of the 1968 CNR/Metro Corporation of greater Winnipeg legal land agreement was reviewed. The location of "Roadway Lands" was noted. These roadway lands formed part of the 1968 land transfer agreement. (This agreement is a complex one and is included in discussions between the city of Winnipeg and CNR regarding East Yards Development).

We have also noted the boundaries of lands controlled by the various parties involved in current East Yards Development plans. These parties include Parks Canada, ARC, Core Area Initiatives, the Federal Government and CN. We have also examined some of the Federal Government's plans for East Yards Development. The proposed Master Plan for this development is included in this report as information.

2.2.1.3 SURROUNDING URBAN CONTEXT

Plans of the southwest transit corridor alignment have been gathered. These plans show the preferred alignment of the southwest transit corridor as it passes Union Station. The preferred alignment is at the level of the main railroad tracks, along the right of way of Tracks 1 and 2. The location of this corridor as it terminates at Main Street is also noted on the plan. The proposed plan is included in this report.

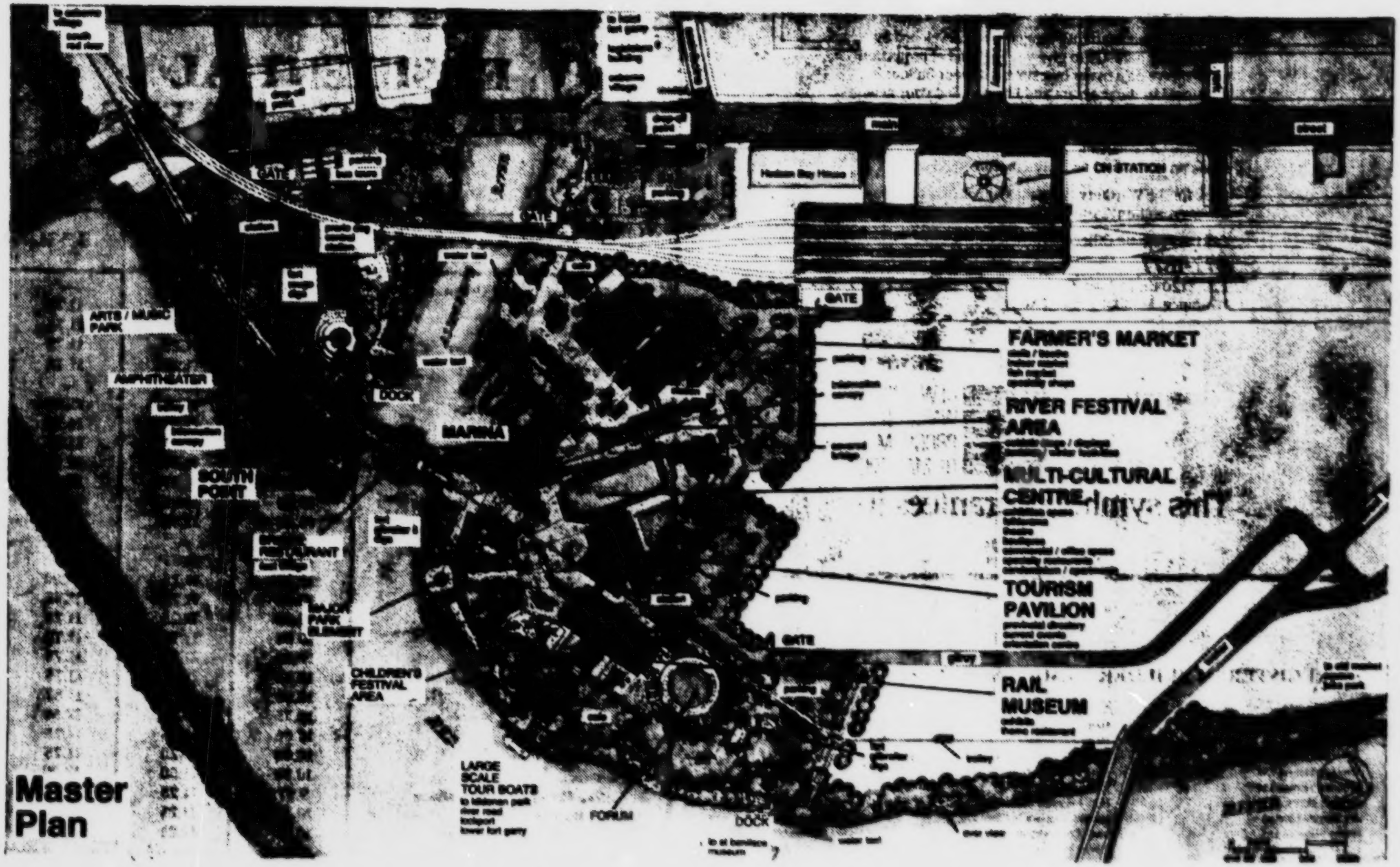
2.2.1.4 EXISTING INTER-CITY BUS DEPOT

Gaboury Associates:

Plans of the existing bus depot were gathered and a tour of the depot was carried out. We also obtained a copy of the 1983 bus depot relocation study carried out for the North of Portage Task Force.

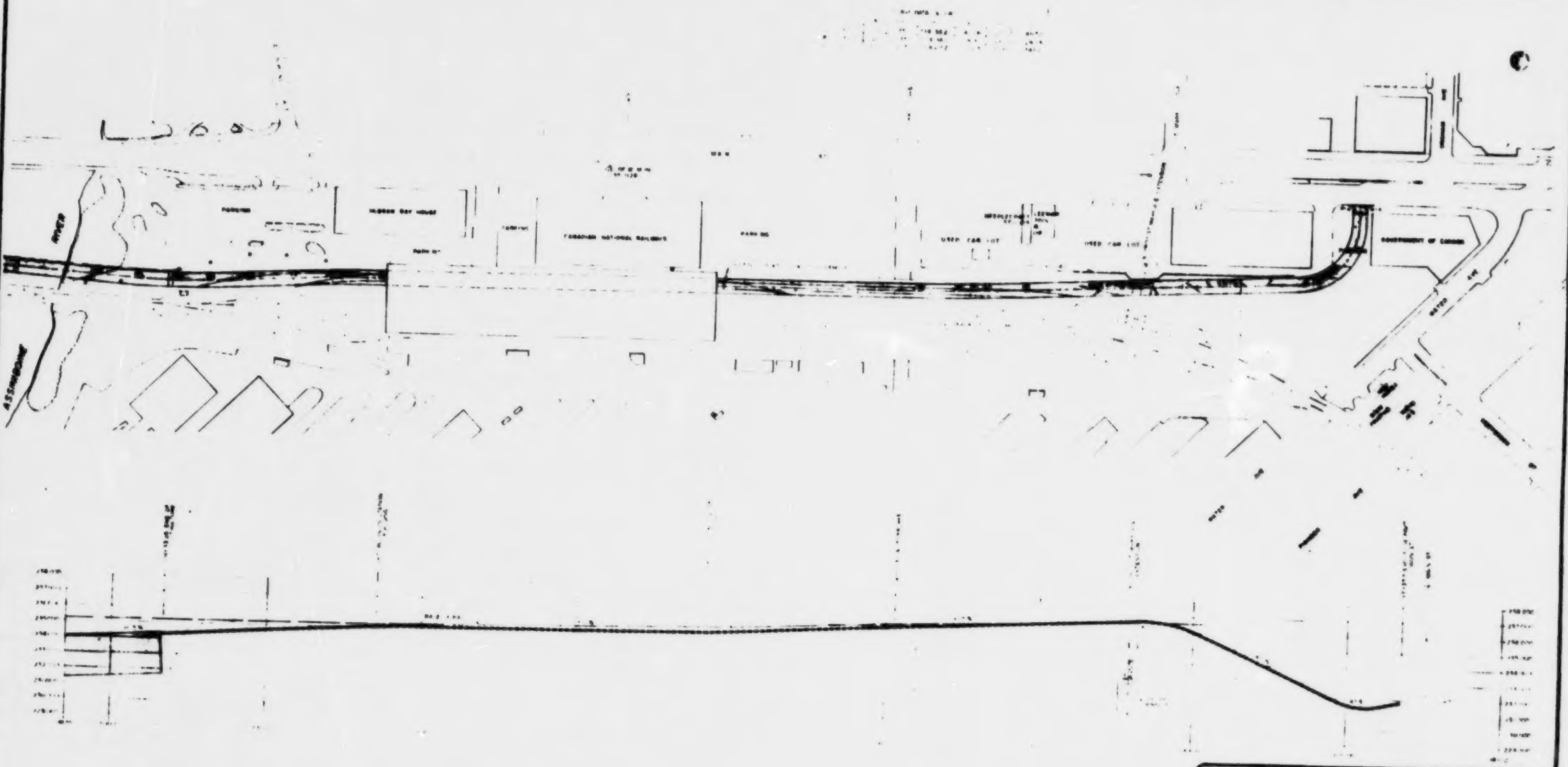
DeLCan:

- Existing bus arrival and departure schedule including points of origin and destination
- Existing arrival, departure and through passenger volumes
- Schedule and passenger volumes for expected charter bus trips
- Daily and yearly passenger volumes and daily, weekly and yearly volume peding characteristics



FEDERAL PROPOSAL FOR
EAST YARDS "FORKS" DEVELOPMENT

SOUTH WEST TRANSIT CORRIDOR
FUNCTIONAL DESIGN

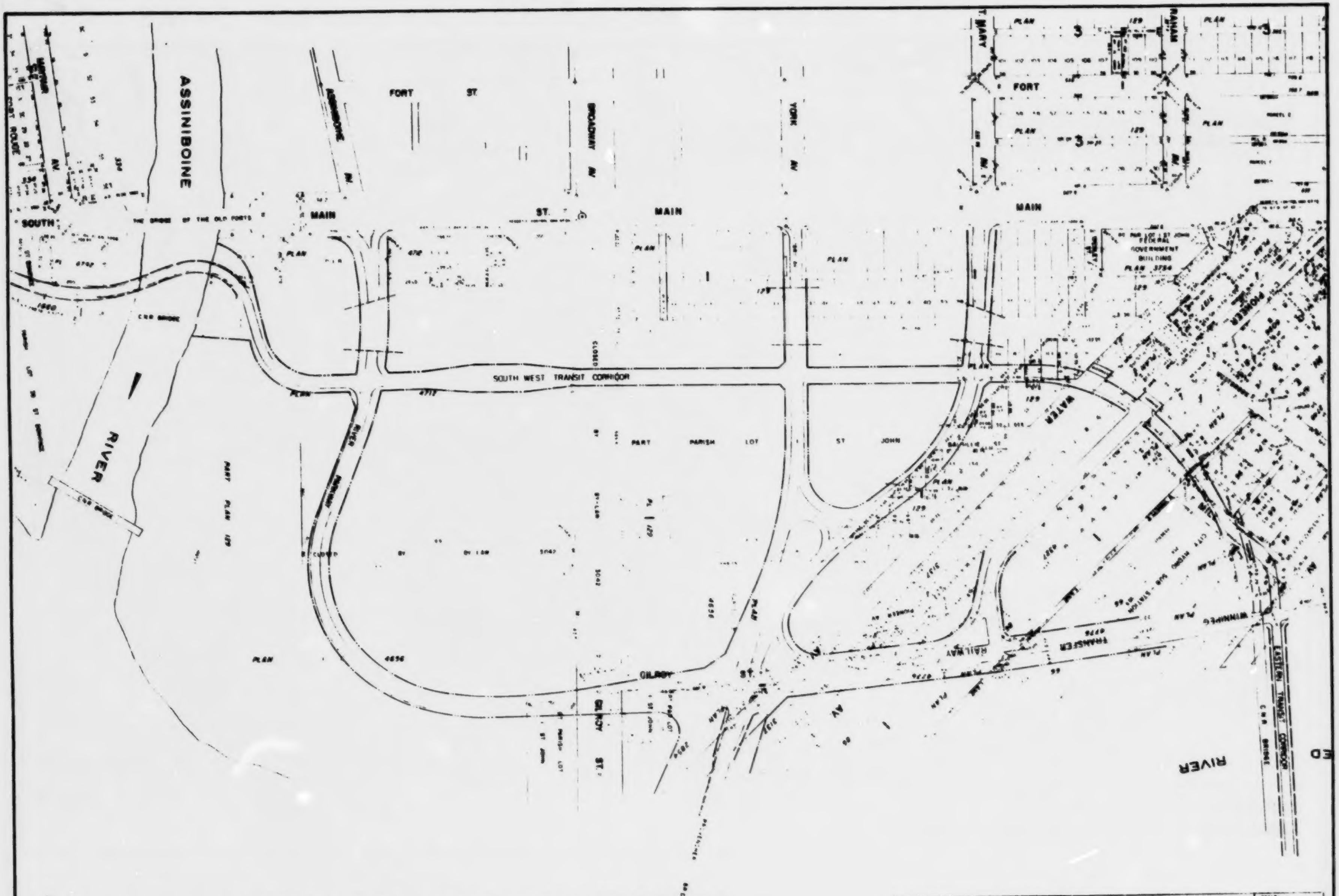


PLAN AND PROFILE
STA. 109+00—117+35.5

DILLON

plate 13

S.W.T.C. LOCATED ON R.O.W. OF TRACKS 1 & 2



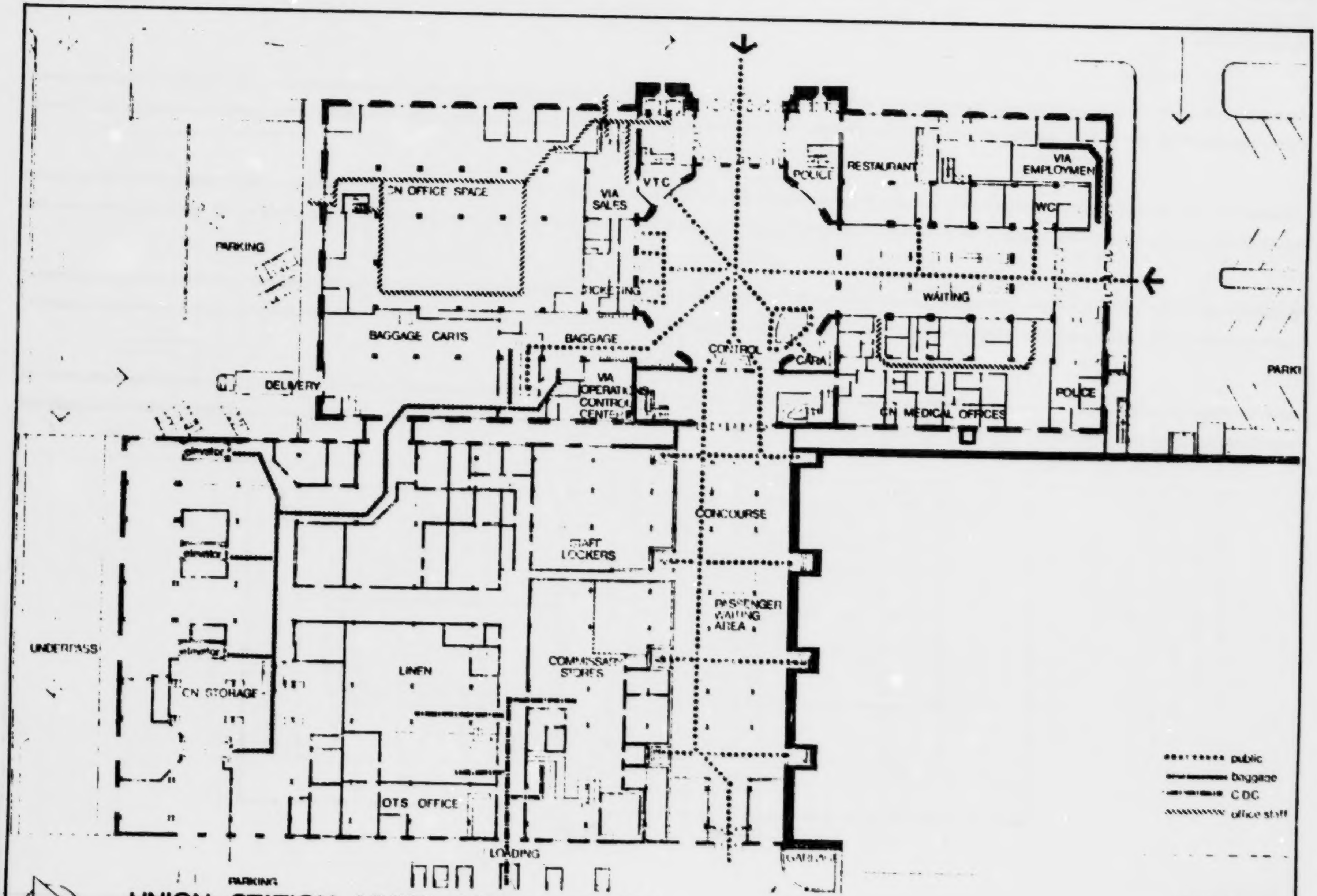
ST. MARY / YORK EXTENSION PROPOSAL

(S.W.T.C. PLAN SUPERSEDED, OTHER ROADS TENTATIVE)

THE CITY OF WINNIPEG
WORKS & OPERATIONS DEPARTMENT
STREETS & TRANSPORTATION DIVISION

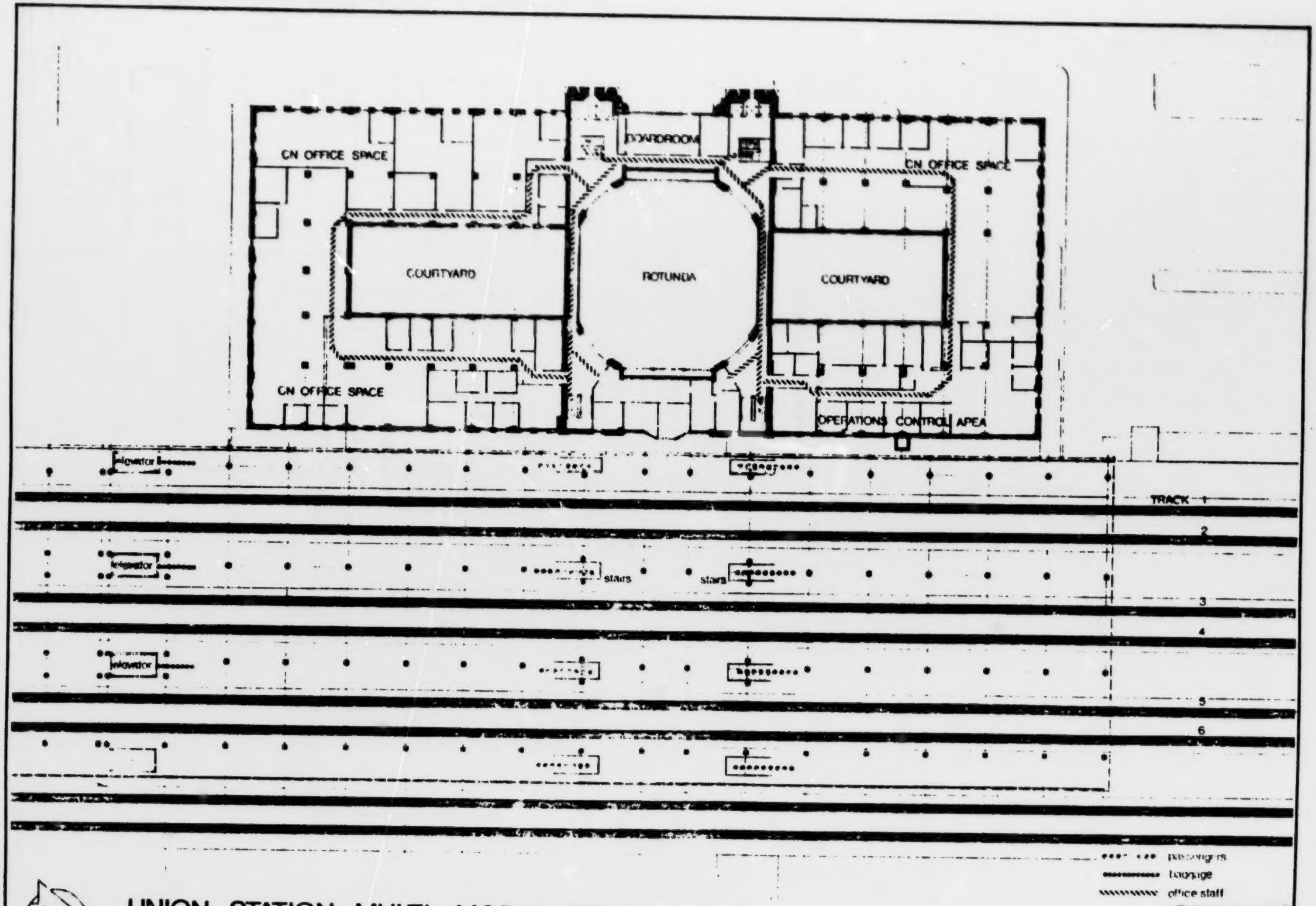
STAGE 1
PROPOSED FUNCTIONAL PLAN FOR
CNR EAST YARD LIMIT

T 2541 C



UNION STATION MULTI-MODAL STUDY
EXISTING MAIN FLOOR PLAN

GABOURY ASSOCIATES
ARCHITECTS



UNION STATION MULTI-MODAL STUDY
EXISTING SECOND FLOOR PLAN

GABOURY ASSOCIATES
ARCHITECTS

- Five and ten year passenger volume forecasts
- Present and future vehicle types and capacities
- An assessment of their existing terminal space and needs and an estimation of future requirements (with respect to ticketing, waiting, administration, baggage, parcel express and small freight, parking, etc.)
- Any additional facilities they feel they would require in a Multi-Modal facility
- Identification of existing and future number of station employees, parking stall and service vehicles

2.2.1.5 OTHER MULTI-MODAL PROJECTS

The following reports on other projects of a similar nature have been gathered:

a) Moncton Via Rail Station - passenger flow and ground transportation
b) Concept operationelle management de la gare de Quebec
c) Gare intermodal de Lévis (étude préliminaire)
d) Gare intermodal de Lévis
e) Gare intermodal de Trois Riviere
f) Multi-Modal passenger terminal - Melville, Saskatchewan
g) Multi-Modal passenger terminal - Moose Jaw
h) A & B Regina Multi-Modal terminal
j) A,B,C & D Multi-Modal terminal - Vancouver
k) Feasibility study for a Multi-Modal transportation centre (southeast Texas Regional Planning Commission)

2.2.1.6 CITY OF WINNIPEG TRANSIT SYSTEM

DeLCan:

- South West Transit Corridor; preferred alignment and status of project; interface with Multi-Modal terminal and VIA Rail operations.
- Inter-city bus routing and schedules in the vicinity of Union Station and potential interface with Multi-modal terminal.
- General origin and destination of passenger movements in vicinity of Union Station.

2.2.1.7 CITY OF WINNIPEG - STREETS AND TRANSPORTATION DEPARTMENT

- Identify existing traffic patterns, volumes and operational problems in study area
- Identify future roadway improvements and alignments in study area and impact of Multi-Modal terminal
- Obtain legal base plan of study area

2.2.2 INTERVIEWS WITH ADVISORY COMMITTEE MEMBERS

Gaboury Associates and DeLCan carried out interviews with each of the members of the Advisory Committee to determine their specific interest in the Multi-Modal project as well as to receive their specialized input on aspects of the study related to the agencies they represent. The minutes of the meeting have been recorded and are presented in full in the appendix of this report. A summary of the important points covered in each of the meetings is listed below.

2.2.2.1 MR. JAMES AUGUST - WINNIPEG CORE AREA INITIATIVE

The land expropriated by Core Area Initiatives to form part of the East Yards Development was identified. Plans for this land including its development by Parks Canada were discussed. Discussion was then held on the possibility of using some of the remainder of Core Area Initiatives Program 6 Funds for land purchase or other means of assisting the development of the Proposed Multi-Modal Centre.

This possibility was considered remote. However, an extension of the Core Area Initiatives agreement (or a new agreement) would alter the situation considerably. This would enable the management board to spend the time to more accurately assess the need of each of the various East Yards projects for Core Area Initiatives "seed money" funding.

2.2.2.2 DR. IAN DICKSON - MANITOBA ARC AUTHORITY

Mr. Dickson declined to be interviewed due to the fact that he was phasing out of ARC Authority projects, and suggested that we interview Parks Canada with regard to ARC Projects that they are taking over as the implementation agency.

2.2.2.3 HENRY TURIK - PARKS CANADA

Mr. Turik described Parks Canada's involvement in East Yards planning. Their primary involvement is in the development of 13½ acres of land along the riverbank from the Provencher Bridge south to the junction of the Red and Assiniboine Rivers. This development forms part of the Federal Government's development of the East Yards plans. With regards to the ARC Authority interpretive center project, Mr. Turik outlined three major development options that Parks Canada is considering.

The first option is the development of an Interpretive Centre Building on the Core Area Initiatives land at the foot of the Provencher Bridge.

The second option assumes a significant park development along the banks of the Red and the Assiniboine Rivers. This option may include the renovation of the existing CN Engine House into an interpretive centre.

The third option assumes a major development of most of the East Yards with tourist facilities, housing and other people oriented developments.

Under this scenario Parks Canada and ARC Authority funds would not be sufficient for an adequate park development as well as an interpretive centre that could handle the number of visitors anticipated.

Therefore this option assumes major landscape development possibilities including interpretive landscape elements, but no physical interpretive centre building. This could be built at a later date, as funds become available. The only significant way in which Parks Canada could be involved in a multi-modal centre, according to Mr. Turik is perhaps in the re-examination of an idea of a winter interpretive facility inside the Union Station, that may form part of the third option.

Other than this minor component, no Parks Canada funding could be considered for any part of the Union Station Development due to the very limited nature of these funds. Parks Canada is also interested in the Union Station as a historical building and would be supportive of restoration efforts as part of a multi-modal project.

2.2.2.4 MR. ANTHONY REYNOLDS - DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION

The interest of D.R.I.E. in a multi-modal facility at Union Station was discussed as it relates to two aspects of the Department's work.

a. The Canada/Manitoba Subsidiary Agreement of Urban Bus Industrial Development (Southwest Transit Corridor implications).

b. Federal participation in the Core Area Initiatives program. Due to its involvement in the C.A.I., D.R.I.E. is providing staffing and services to guide the conceptual development of East Yards planning on behalf of the Federal Government.

This is the conceptual development plan recently announced by Mr. Jake Epp. As part of this responsibility D.R.I.E. is overseeing the work of planning consultants who are developing plans for a large part of the site devoted to public facilities. These plans are preliminary at present and are not available for review at the time of writing.

This development plan if implemented, would be a major restructuring of the East Yards and its relationship to downtown Winnipeg. It would also have a significant impact on the feasibility of a multi-modal transportation centre located at Union Station.

The degree of impact and the ways in which this development would affect planning of the multi-modal centre, will be assessed during later stages of this feasibility study.

2.2.2.5 MR. KENT SMITH - MANITOBA DEPARTMENT OF URBAN AFFAIRS

The areas in which the Department of Urban Affairs would be involved are as follows:

a. Coordinator of the province's response to the proposed East Yards Development.

b. Coordinator of the province's response to A.R.C. Programs

c. Coordinator of the Province's input into Core Area Initiatives Programs.

d. major funding body for Winnipeg Transit (Southwest Transit Corridor Implications).

Discussions of the South West Transit Corridor and the delay in its implementation led to the conclusion that although the timing and plans for the Corridor were questionable, our study should take into consideration all of the possible Corridor routes around Union Station.

The possibilities of the Core Area Initiatives program (or a new similar program) being extended were discussed. The need for a multi-modal centre was then discussed in general terms. The Department of Urban Affairs was skeptical at present as to the existence of such a need. This is based on the lack of statistical data supporting such a need. Advantages and disadvantages of such a centre were discussed as well as the pros and cons of the existing bus depot location.

2.2.2.6 MR. RAY RYBUCK - C.N.R.

Mr. Rybuck discussed in general terms the East Yards Development plans currently under consideration. However, he would prefer to wait for Mr. Epps announcement regarding these developments before discussing details. Plans for the existing buildings on the East Yards site were then discussed. CN facilities within Union Station, under the tracks, and in the East Yards, were outlined in some detail.

Space which could be used by the Multi-Modal Centre was than discussed in relation to CN's existing facilities in those locations. Those facilities which could possibly be relocated were identified. Possible alternate locations for the Multi-Modal facilities were outlined by the Consultants. Mr. Rybuck commented on each of these possible locations listing CN's concerns and priorities. As the present owner of the land upon which the multi-modal facility would be located, Mr. Rybuck discussed ways in which CN may be willing to consider their involvement in a multi-modal facility. Mr. Rybuck also stated that this would depend upon whether or not the multi-modal facility would fit into CN's plans for development of the East Yards.

2.2.2.7 MR. H. F. MURRAY - VIA RAIL

Mr. Murray discussed VIA Rail's attitude towards a multi-modal Centre at Union Station. He stated that VIA supports and encourages the concept of multi-modal facilities and considers that they would be advantageous to all modes of transportation involved. Discussion was then held on the extent to which joint use space could be utilized in a Multi-Modal Centre. Plans for other Multi-Modal Centres across Canada were outlined including those in Trois Riviere, Québec; Lévis, Québec; Moose Jaw, Saskatchewan; Melville, Saskatchewan; Regina, Saskatchewan; and Vancouver. The Gare du Palais which is a Multi-Modal Centre in Québec City is opening this year. VIA Rail's space requirements within the station were than outlined. We were directed to Mr. Murray Brown of VIA Rail for further details regarding VIA's space requirements in a new Multi-Modal facility. With regard to ownership, leasing and financial management of the multi-modal facility, Mr. Murray indicated that VIA would be open to consider a number of options depending on discussions with all the parties involved.

2.2.2.8 MR. BERNARD THIESSEN - GREY GOOSE BUS LINES

Mr. Thiessen presented his views on the advantages and disadvantages of a multi-modal terminal with VIA Rail and bus carriers as participants. His concerns regarding the number of transferring passengers, and the timetabling accuracy of VIA Rail, were discussed. Mr. Thiessen than expressed his concerns with regard to a new location for bus facilities. A location at Union Station will be further from the shopping and Winnipeg Transit facilities than at present. With regard to the two primary options for location of the bus facilities at Union Station (west of tracks or east of tracks) Mr. Thiessen stated that the east of tracks location was much less desirable due to the length of travel between ticket facilities and bus loading areas.

Because of the need to expand and because of the lease on existing facilities coming due, Mr. Thiessen stated that the bus carriers would be examining expansion at the present facilities as well as exploring other potential site. Facilities which will be necessary in a new Multi-Modal were than discussed. In conclusion Mr. Thiessen stated that Grey Goose would be willing to consider being part of a Multi-modal Centre at Union Station, but only if the serious draw backs that he has mentioned, could be overcome.

2.2.2.9 MR. GARY PEPPLAR - GREYHOUND BUS LINES

Discussion was held on Greyhound's attitude towards a multi-Modal facility shared with VIA Rail and Grey Goose Mr. Pepplar stated that he was not aware of any facilities shared by Greyhound and rail passenger carriers and therefore the unknowns of the situation create cause for concern. Mr. Pepplar then outlined the various options open to bus carriers with regard to future terminal plans. He stated that they have outgrown the present facilities and would need expansion in the near future. Greyhound's space requirements in a new facility were listed in general terms. Those areas which could be jointly used with other participants in the centre were identified. Mr. Pepplar stated that it is not known at present whether a multi-Modal facility would be an advantage or a disadvantage to the bus carriers and therefore would require more study on their part. Our feasibility study could help the carriers in analysing the pros and cons of such a facility at Union Station.

2.2.2.10 MR. ISADORE COOP - NORTH PORTAGE DEVELOPMENT CORPORATION

The nature and extent of functional components anticipated within the North Portage Development were identified.

With regard to transportation planning, Mr. Coop stated that no major transportation facility is planned for the North Portage Development. Discussion was then held on the inter-city bus depot on its present site and the possiblility of its relocation as part of a Multi-Modal facility at Union Station. Mr. Coop stated that the N.P.D Corporation would not oppose the relocation of the bus depot. He suggested a direct shuttle bus service from the new Multi-Modal Centre to downtown shopping and commercial facilities.

2.2.2.11 MR. DAVE HENDERSON - COMMISSIONER OF ENVIRONMENT CITY OF WINNIPEG

The 1966 agreement between the metro planning commission (City of Winnipeg) and the CNR was discussed. Mr. Henderson stated that, under this agreement any development within the East Yards must be jointly agreed upon by the City of Winnipeg and CNR. (A subsequent interview with the city of Winnipeg law department produced a plan showing the lands within the East Yards which were identified as roadway lands under the 1966 agreement).

With regard to the roadway infrastructure, Mr. Henderson stated that internal roads would be the responsibility of the developer, while the city would be responsible for access and approach roads, such as the St. Mary's/York extensions. With regard to the City's attitude toward the Multi-modal Centre, Mr. Henderson stated that city council has never considered the subject and therefore, had no official opinion on the subject. Discussion was then held on possible locations for a new bus facility. Mr. Henderson stated that City Council had no official preference for location. Internal location studies have been carried out but the private sector would be within their rights to build a bus facility anywhere in the downtown area where access would not be problem for the Streets and Transportation department.

2.2.2.12 MR. PETER HAGUE - WINNIPEG TRANSIT

Discussion was held on the proposed South West Transit Corridor. Mr. Hague stated a functional design has been completed for the entire corridor as well as costing of land and construction. 3 possible routes for the corridor around Union Station had been considered.

1. On Main Street
2. East of the main line tracks at grade
3. Replacing tracks 1 and 2 immediately behind Union Station at the height of the main line embankment.

This last option is Winnipeg transit's preferred alignment. Problems with the other options were outlined. VIA Rail's concerns with regard to the use of tracks 1 and 2, were also discussed. Previous discussions between the consultant and Winnipeg Transit have indicated that Winnipeg Transit is open to the suggestions of having a southwest transit corridor stop at Union Station and also to allowing inter-city bus use of the corridor.

Existing bus routes in front of Union Station were reviewed, especially with regard to the capability of these buses to handle the new load anticipated with the development of a Multi-Modal Centre at Union Station. The Dash bus and possible shuttle service was identified by the Consultants as an important aspect of overall transportation planning relating the Multi-Modal Centre to other downtown points. Mr. Hague stated at that if the Multi-Modal facility is developed city transit buses should be considered as one of the modes, the importance of which should not be forgotten in the planning of the facility. (eg; climate controlled waiting areas etc.).

Winnipeg Transit is still considering the possibilities of enhancing Graham Avenue's potential as a Transit Mall. No specific plans for major developments along a Transit Mall have been finalized. This would affect buses as they enter and exit the southwest transit corridor termination at Main and Graham.

The North Portage Development would have minimal effect on existing transit routes and would therefore, have minimal effect on transit plans for the Multi-Modal facility at Union Station.

2.2.2.13 MR. BERNARD FOTH - MANITOBA DEPARTMENT OF BUSINESS DEVELOPMENT AND TOURISM

Mr. Foth stated that his department looked favorably on the development of a Multi-Modal Centre at Union Station as being very positive for tourism in Manitoba and in Winnipeg. Buses are integral to the development of tourism in the Province, not only due to significant tourist arrivals into Winnipeg by bus, but also due to the trend toward bus tours for seniors and group tours. Mr. Foth felt that this Multi-Modal facility, as a tourist arrival/departure point, would be complementary to the tourist facilities planned in the East Yards. Some details of their relationship between the Multi-modal Centre and the East Yards plans were discussed. Department funding programs for tourism in Winnipeg were also discussed in relation to the Multi-Modal Centre. In general, tourist attractions are being targetted for funding in Winnipeg.

Union Station would not qualify as a tourist attraction and so would not fit into present department funding programs. Certain aspects of the project eg: a major restaurant in the station, may be eligible for funding, however, the Department of Tourism would have to assess the tourist potential of the project on an ongoing basis during planning and development.

2.2.2.14 MR. W. DRAPER - WINNIPEG CHAMBER OF COMMERCE

Mr. Draper stated that the Chamber of Commerce is in favor of the development of the Multi-modal facility. He also stated that he considers Union Station to be a good location for such a facility. Mr. Draper also suggested two concerns regarding the facility. Firstly, he felt that it was important to tie the Multi-modal facility into the Federal and Provincial government's plans for the East Yards. Secondly, he thought that the negative image of bus stations, as sometimes disreputable places, should be overcome.

In order to do this, the design, operation and policing of the station would have to be of very high standards. With regard to possible related functions in association with the facility, Mr. Draper suggested that extensive retail facilities would add to the problems of the downtown area which suffers from the dispersal effects of a number of retail anchors. A similar situation exists with the over supply of office space in the downtown area. Easy access from the Multi-Modal facility to shopping in office areas should also be insured by frequent Dash bus service (or similar means and by a large enough taxi stand for adequate service.

2.2.2.15 MR. LEN VOPNFJORD - CITY PLANNING DEPARTMENT

Mr. Vopnfjord outlined the recent history of bus depot relocation studies. Considering the pros and cons of relocating the bus facility, Mr. Vopnfjord stated that there is no compelling reason to relocate the facility at present and is therefore, ambivalent about the need to do so. He would tend to leave that decision to the judgement of the operators. Other factors in the relocation question are:

1. The possible existing advantages of a multi-modal tie in with the rail carrier
2. Possible existing site constraints affecting the operators need to expand, and
3. Possible future decisions by existing site owners not to extend the operators lease.

Discussion was than held on the advantages of the Union Station site as a Multi-Modal facility, should the decision be made by bus operators to move from their present site. Mr. Vopnfjord indicated that the city had done studies of alternate sites, and that he favoured the Union Station Site. The reasons for this were then discussed. The East Yards plans were then discussed. It was agreed that the tourism related development would benefit from the Multi-Modal facility as a tourist arrival point.

2.2.3 SURVEYS (AT UNION STATION AND PORTAGE AVE. BUS TERMINAL)

- Review of operation and physical layout of station and terminal and identification of Multi-Modal terminal site constraints at station

- Survey of mode of access to station and terminal by users (car, taxi, bus, on foot etc.)

2.3 ACTIONS REQUIRED BY TRANSPORT CANADA AND MANITOBA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

One area of statistical information that was found to be lacking during our Phase 1 investigations, was data related to modal interchange of passengers between bus and rail. The extent of this interchange would vary depending upon the region of the country and that region's transportation patterns. Specific interchange data for Manitoba does not appear to exist. Surveys to determine this information would, of necessity, be quite extensive in nature, and would not be able to be carried out under the terms of reference for this particular study. Transport Canada and the Manitoba Department of Highways and Transportation, may therefore, wish to consider either carrying out such surveys themselves or initiating specific consultant surveys to obtain this data.

Although it would appear that this information is essential in order to determine the need for an inter-modal facility, two qualifying factors should be taken into account.

.1 Although the level of inter-change would at present appear to be minimal, the existence of a modern, efficient, attractive, inter-modal station may increase the level of inter-change dramatically. This factor would be difficult to determine by statistical surveys. The opinion and experience of the carriers would be a more reliable means of assessing the increase in demand that might result from the creation of such a facility.

.2 There are factors other than the degree of inter-modal exchange that would affect the decision to build a joint rail bus passenger terminal.

    .1 Cost efficiencies of joint space usage
    .2 Convenience to the travelling public of having all transportation facilities and information in one location
    .3 Advantages to surrounding developments of having a major tourist and visitor arrival point in one concentrated location

PHASE II
PROGRAMMING AND ALTERNATIVES

3.0 PHASE II - PROGRAMMING AND EXAMINATION OF ALTERNATIVES

3.1 INTRODUCTION

Phase II report is divided into two sections: Programming and Alternatives.

The work for both sections has been carried out jointly by Gaboury Associates and DeLCan Ltd. However the majority of programming work was done by DeLCan and the majority of the Alternative Proposals work was done by Gaboury Associates.

3.2 SUMMARY OF PHASE II - WORK

3.2.1 AREA PROGRAMMING - DeLCan Limited

To facilitate the development of alternative layouts for a Multi-Modal terminal, quantitative area programming has been carried out for the various carrier and public areas. For certain functions, the existing areas provided at Union Station have been retained in the alternatives developed. This section of the report identifies some details of the considerations made and results achieved in the area programming.

3.2.1.1 EXISTING CONDITIONS - PASSENGER SERVICES

Rail Services (VIA Rail)

At present there is one transcontinental passenger train through Winnipeg eastbound and one westbound daily. There is also daily operation between Winnipeg and Vancouver via Edmonton. The balance of the passenger train operation consists of:

.1 Three trains weekly, each way between Winnipeg and Sioux Lookout/Capreol.

.2 Three trains weekly each way between Winnipeg and Churchill.

A summary of the passenger volume data for 1985 received from VIA Rail is included in Table 1. The annual number of passengers destined to or from Winnipeg on VIA Rail is estimated to be 174,000 for 1985. Traditionally, the heavy travel periods for VIA passengers are from mid-June to the beginning of September and the Christmas and Easter holiday period. Their busiest month is June with a passenger volume of 22,900.

VIA's busiest days of the week are Sundays (mainly late evening arrivals), and Fridays (mainly early evening departures).

Table 1 also indicates the 1985 vehicle (train) loading for VIA at Union Station during the peak hour & peak day.

Intercity Bus Services

Winnipeg is serviced by two major intercity bus carriers. Grey Goose Bus Lines (Manitoba) Ltd., operates a major service out of Winnipeg to numerous points in the province as well as several locations in Saskatchewan and Ontario. Greyhound Lines of Canada Ltd. operates a major interprovincial service across Canada, and as well serves several Manitoba locations. Beaver Bus Lines Ltd. operates an hourly service between Winnipeg and Selkirk.

Grey Goose Bus Lines (Manitoba) Ltd.

Grey Goose maintains its head office in Winnipeg and provides an extensive service to various centers, most within the province. Table 1 includes an estimate of the 1984-1985 passenger volumes for Grey Goose. The current annual number of passengers destined to or from Winnipeg on Grey Goose is estimated to be 402,600. The Grey Goose peak periods are July and August as well as the Christmas and Easter seasons. Their busiest day of the week is typically Friday (mainly late afternoon departures).

Table 1 also indicates the 1985 vehicle (bus) loading for Grey Goose and Greyhound for the peak day and peak hour.

Greyhound Lines of Canada Ltd.

Greyhound provides an extensive interprovincial service to complement its Manitoba based routes. Table 1 includes an estimate for 543,400 for the 1985 annual number of Greyhound passengers destined to or from Winnipeg. Greyhound's heavy travel periods throughout the year coincide with Grey Goose and VIA, namely, the summer months, Christmas and Easter. Their busiest day of the week is typically Friday, while their busiest hour of the day is usually in the early evening.

Beaver Bus Lines

Beaver Bus Lines operates a local service between the Winnipeg Bus Terminal and downtown Selkirk. This service operates hourly throughout the day and there are many stops made along the route, especially within Winnipeg City limits. Their busy periods are in the winter months, while the summer season is slower, as most of their patrons are students.

Beaver Bus Lines currently lease space from both Greyhound and Grey Goose in the existing terminal. Their ticket sales and parcel express are handled by a Greyhound Agent. They do not have any administration or maintenance space at the existing terminal.

Beaver Bus Lines have indicated that they would prefer to remain in the same terminal as Greyhound and Grey Goose to maintain continuity of their parcel express service. They also stated that in a new terminal they would retain the same arrangement as present with respect to ticketing and parcel express. The area programming has been developed on this basis although specific areas are not shown as being devoted to Beaver Bus Lines separately.

Existing Composite Passenger Services

By combining the existing passenger volumes of the major carriers, we will gain some insight into the passenger loadings which would be present in a common terminal. A total of approximately 1,276,600 bus and rail passengers are transported into and out of Winnipeg annually. During a peak month, approximately 169,700 passengers would use a common terminal.

Peak day volumes for the carriers would total approximately 7,065 passengers. A concurrent peak hour for the three carriers would see approximately 760 passengers in the terminal. This peak hour would occur during the early evening.

3.2.1.2 ESTIMATES OF FUTURE TRAVEL ACTIVITY

For the purpose of this study, 2005 has been selected as the design year. VIA Rail supplied passenger volume forecasts in five year increments ending in the year 2005. The volumes were identified as arrivals and departures (no "through" passengers) by each train. Table 2 contains a summary of these design year volumes for VIA. The 2005 projected volumes supplied by VIA represent an annual growth rate (compounded annually) of approximately 3.7%. VIA Rail have not indicated any changes to their present schedule for 2005 and the growth is projected to occur fairly evenly between the various routes. For these reasons, the busiest days of the week and hours of the day remain identical to the 1985 traffic patterns with Sunday late evening arrivals and Friday early evening departures dominating. The projected peak hour volume of VIA passengers is 666.

The bus carriers were not so optimistic about traffic growth. Grey Goose did estimate a 25% increase in their passenger volumes over the next 10 years while Greyhound feels their passenger volumes may actually drop because of increased competition from a deregulated air traffic industry. For planning purposes, a 1.5% annual rate has been used as an upper limit to the intercity bus traffic growth. Over a twenty year period, this growth rate, compunded annually, translates into a 35% increase of the 1984-1985 passenger levels.

In selecting this growth rate, it has been recognized that the City of Winnipeg Planning Department estimates that the Winnipeg population base is exptected to increase at a rate of approximately 1.0% over the next twenty years. Also recognized is the projection given in the Transport Canada report Freight and Passenger Forecasts - 1985 of a 1.7% annual increase in bus person trips in the western region between 1984 and 1985.

Table 2 contains the projected Grey Goose, Greyhound and Beaver 2005 traffic figures. The total annual bus traffic in 2005 is projected to be approximately 1,487,800. The peak month volumes total 198,200 and peak day volumes are estimated to be 8,310. It has been assumed, as with VIA Rail, that no changes will occur to the present bus schedules. In fact, the future peaks will most likely be spread with some arrivals/departures pushed into periods just outside of peaks.

Without any change in schedules and a common growth rate applied to all routes, the peak days and hours are projected to occur in 2005 at the same time of the week and day that they do in 1985. Grey Goose traffic will peak on Fridays and during the late afternoon when departures are particularly heavy. Greyhound will continue to experience heavy traffic on Friday and during the mid-morning and early evening periods.

The projected Greyhound, Grey Goose and Beaver traffic volumes have also been combined to give total bus volumes in order to program bus specific areas.

Combining the Design Year volumes for the carriers yields projected terminal traffic volumes. Those figures are also shown in Table 2. Total passenger volume in 2005 is expected to reach 1,847,100. The peak month in the design year will have a passenger volume of approximately 245,400. Peak day passenger volumes for the terminal are estimated to be 10,140. An overall terminal design peak hour of 1,110 passengers has been determined. This volume is estimated to be the 30th highest hourly annual volume of passengers in the terminal in 2005. Additional design peak hour volumes relating to specific areas and activities are also developed in the area programming using similar criteria.

In addition to the intercity bus passengers, Winnipeg Transit bus patrons would also be using the terminal. These patrons would come from bus routes operating on Main Street and the S.W.T.C. No routes currently operating on Main Street would switch to the S.W.T.C. once it was in place.

The Streets and Transportation Department of the City of Winnipeg have estimated that in 1999, and assuming east yard development, as many as 70 buses using the S.W.T.C. will be stopping at Union Station in both the a.m. and p.m. weekday peak hours. No information is currently available with respect to the number of passengers embarking or disembarking these buses. These passengers will have a strong impact on the terminal facilities. Within the scope of this study it is not possible to quantify the number of passengers and reflect the impact on the terminal that they will have. This area should be addressed in subsequent design phases.

3.2.1.3 TERMINAL PASSENGER LOADING

Table 3 identifies the 2005 design peak hour passenger volumes for various areas of the terminal. Values for 2005 design net peak hour persons are developed after taking into account such factors as: visitors (well wishers and greeters) to the terminal (passengers + visitors = persons), duration of stay in the terminal and occupancy rates of specific areas of the terminal.

3.2.1.4 TERMINAL PASSENGER SIZING

The following design rates were used in developing the various terminal areas identified in Table 4 for terminal 2005 peak hour passenger sizing.

General waiting, circulation areas	15.0 s.f./person
Ticketing areas	11.5 s.f./person
Train Arrival/Departure Lounges and Baggage Pick-up	12.0 s.f./person
Bus Arrival/Departure Lounge	12-15.0 s.f./person

For the ticketing area determination, an assumed ticket processing rate of 40 per hour was used. The required number of ticket stalls are:

Grey Goose	9 stalls
Greyhound	6 stalls
Beaver	1 stall
VIA	7 stalls

3.2.1.5 TERMINAL VEHICLE LOADING/SIZING

Within the limitations of this study, the mode of arrival and departure at the terminal cannot be determined through a survey. For the purposes of this study the following distribution has been assumed for arrivals/departures at the terminal:

a)	Walk	15% (due to proximity to downtown)
b)	Public Transit	5% (nominal)
c)	Private Auto	40% (driven by friends, relatives)
d)	Taxi	40% (passengers only)

The number of passengers arriving/departing by the various modes can be determined by applying the above percentages to the terminal design peak hour passenger volume of 1,110. It is also assumed that there will be a 50%/50% arrival/departure split of the total 1,110 passengers.

a)	Walk	166 passengers
b)	Public Transit	56 passengers
c)	Private Auto	444 passengers
d)	Taxi	444 passengers

Assuming the 555 visitors arrive/depart by private auto only, there will be an average of 555/444 = 1.25 visitors/auto.

Private Auto Arrivals

Assuming that half the private auto arrivals are dropped off at a rate of 4 minutes/drop off, then seven drop off spaces are required.

Assuming that the other half of the private auto arrivals park at the terminal for an average duration of 30 minutes with an average of 1.5 passengers per auto, then 37 parking spaces are required.

Taxi Arrivals

Assuming all taxi arrivals take two minutes each with an average party size of one passenger, seven drop off spaces are required.

Private Auto Departures

Assuming that all private auto departures park at the terminal for an average of 30 minutes and have an average party size of 1.5 passengers, then 74 parking spaces are required.

Taxi Departures

Assuming all taxi departures take two minutes each with an average party size of one passenger, then seven pick up spaces are required.

Carrier Employee Parking Requirements

The bus carriers have identified the following parking requirements for their senior terminal staff:

Grey Goose	10 - 15 spaces:	assume 12 spaces
Greyhound	6 spaces	
VIA Rail	50 spaces	
TOTAL:	70 spaces	

Parcel Express Parking

Provision will be made for approximately 40 - 50 parking spaces for cars and trucks. The majority of vehicles would be vans, cars and small trucks but provision should be made for larger trucks to access the parking lot.

Terminal Bus Lanes

The existing bus terminal has a total of 15 bus lanes with one assigned exclusively for the use of Beaver Bus Lines. Both Grey Goose and Greyhound have indicated that a minimum of 21 bus lanes should be incorporated into a new terminal, again assuming one to be used by Beaver. Although Table 2 indicates a total of 25 Greyhound, Beaver and Grey Goose arrivals and departures during the design year peak hour, 25 bus lanes would not be required as several bus lanes may be used more than once in the peak hour and the carrier schedules could be modified slightly to further reduce the peak hour bus lane demand.

Public Transit

Allow for three to four standard bus spaces for use by Winnipeg Transit at the terminal. For the Main Street alternatives, this could be located on Main Street itself near their present location.

Airport Shuttle Bus

Allow one standard bus space at terminal. A smaller, 20 passenger bus would be used for this service.

VIA Rail

VIA currently operates on six tracks through the Union Station area although some of these are used frequently for servicing operations between trips. VIA will be asked to give up the use of tracks 1 and 2 if and when the Southwest Transit Corridor project proceeds. The preferred alignment for this two lane bus way coincides with VIA's two most westerly tracks.

CN Rail

The CN mainline (two tracks) is located immediately east of the train shed at Union Station. CN has indicated that they wish to protect their option to add two additional tracks to the east at some time in the future.

Table 5 summarizes the proposed terminal vehicle loading/sizing requirements.

3.2.1.6 TERMINAL AREA PROGRAM

The following summarizes some of the previous data and also lists new information about the terminal sizing. Opposite most of the items are value(s) identifying their area requirements. When two values are shown, the first is the desirable minimum and the second the preferred value. Some areas have been obtained from the "Union Station Development Plan" prepared for VIA Rail by E.J. Gaboury and Associates in March of 1981. Based on comments from the Advisory Committee, some area figures shown in this final report marked with an asterisk (*) have been revised from areas previously presented in the Phase II progress report.

General Terminal Facilities

.1 Interior:

a)	General Circulation, waiting and Lounge Areas		4,500 s.f.
b)	Restaurant and Kitchen		
	Existing Restaurant	2,600 s.f.	
	2nd Floor Courtyard Option		6,500 s.f.
c)	Snack Bar/Fast Food	1,000 s.f.	3,000 s.f.
d)	Liquor Lounge		1,000 s.f.
e)	Drug Store	800 s.f.	1,500 s.f.
f)	Newstand/Confectionary	600 s.f.	1,200 s.f.
g)	Bank	150 s.f.	1,000 s.f.
h)	Gift shop	200 s.f.	1,000 s.f.
j)	Washrooms		900 s.f.
*k)	Barber	200 s.f.	500 s.f.

General Terminal Facilities (continued)

.2 Exterior:

a) Short Term Parking	111 spaces
b) Parking: Drop off/Pick Up	21 spaces
c) Bus Parking:	
- Winnipeg Transit	3-4 spaces*
- Airport Shuttle Bus	1 space

Bus Facilities

.1 Interior:

a) Administration space: Grey Goose		3,000 s.f.*
b) Administration space: Greyhound		3,000 s.f.*
c) Ticket line up space: Grey Goose		1,200 s.f.*
d) Ticket line up space: Greyhound		1,200 s.f.*
e) Ticket line up space: Beaver (Grey Goose and Greyhound requested equal areas for ticketing)		184 s.f.*
f) Interior Waiting Lounge	5,160 s.f.	6,450 s.f.
g) Parcel Express Area: Grey Goose	10,000 s.f.	12,500 s.f.
h) Parcel Express Area: Greyhound	10,000 s.f.	12,500 s.f.
j) Control/Dispatch Office:	600 s.f.	1,000 s.f.*

.2 Exterior:

a) Bus Loading Platform Minimum 10' clear depth. Area varies with each Alternative.		
b) Carrier Employee Parking:		
- Grey Goose		12 spaces
- Greyhound		8 spaces
c) Parcel Express Parking		40-50 spaces*
d) Carrier Bus Lanes	21 lanes	24 lanes

NOTE: Bus carriers have advised that bus dimensions of 8'6" width and 45'0" length* should be used for planning future facilities. Also an 8'0" distance is required * between busses in the bus loading lanes.

VIA Rail Facilities

.1 Interior:

a)	Employee Ticketing Area and Baggage Drop-Off	2,900 s.f.
b)	Ticket line up space	910 s.f.
c)	Interior Waiting Lounge	4,740 s.f.
d)	Baggage Pick Up Area	1,990 s.f.
e)	Sales (700 s.f. existing) relocated with general administration space	
f)	Employment Office (1,150 s.f. existing) relocated with general administration space	
g)	Total VIA administration and sales, employment office and training	33,000 s.f.
h)	VIA operations control and Station Masters office	1,440 s.f.
j)	Rail Travel Bureau (Visitor Travel Centre)	1,050 s.f.

.2 Undertrack Area:

a) As existing or in future as per VIA Development Plan.

.3 Track Area:

a)	Maximum number of tracks	6
b)	Minimum number of tracks if SWTC proceeds and if VIA's maintenance functions are accomodated elsewhere.	4

CN Rail Facilities

.1 Main Building:

a) 1st floor office space to be relocated.
b) Office space on 2nd, 3rd, and 4th floors to remain unless CN vacates.
c) Operations Control on Level 2: existing area.
d) CN Medical Offices - relocated from main floor.
e) Basement Areas: Computer facilities and signal/telecommunications equipment to remain.

.2 Undertrack Area:

a) CN garage area to remain for CN use.

.3 Exterior:

a) Pending redevelopment of East Yards, all CN Yard facilities to be relocated.
b) Steam Heat Plant to be removed. Smaller heating plant for station to be constructed near or in the basement of station or undertrack service area.

Airport Related Facilities *

.1 Interior:

a)	Private Travel Agency	200 s.f.	1,000 s.f.
b)	Car Rental Booths		300 s.f.
c)	Airport Information Centre (no staff) includes F.I.D.S. (Flight Information Display System), monitors above airline information, advertising display.		100 s.f.
d)	Direct telephones to airlines: 12 telephones		100 s.f.*

.2 Exterior:

a)	One bus parking space for airport shuttle bus	1 space
b)	Car Rental Stalls: on site if possible or at off site rental company premises nearby	9 spaces
c)	Long Term Parking: none provided due to relative land values between station area and airport "park and fly" area.	

Table 5
Terminal 2005 Peak Hour Vehicle Loading/Sizing

A. Parking Requirements

1.	Short Term Parking:	111 spaces
2.	Drop off/Pick up Parking:	
	- Taxi drop off	7 spaces
	- Taxi pick up	7 spaces
	- Private Auto drop off	7 spaces
3.	Carrier Employee Parking Requested	
	- Grey Goose	12 spaces
	- Greyhound	8 spaces
	- VIA	50 spaces
4.	Parcel Express	40-50 spaces
5.	Terminal Bus Lanes	21 minimum
6.	Winnipeg Transit	3-4 bus spaces
7.	Airport Shuttle Bus	1 bus space

B. Track Requirements

		Existing	Future
8.	VIA Rail	6	4*
9.	CN Rail	2	4
10.	S.W.T.C.	0	2*

* VIA Rail's future track requirement is shown as 4 in the event that they agree to allow the S.W.T.C. to utilize the area of their tracks #1 & #2, at Union Station. VIA has indicated that they would be willing to relinquish the use of tracks #1 & #2 only if they are provided appropriate maintenance and storage facilities elsewhere.

Table 4
Terminal 2005 Peak Hour Passenger Sizing

Area	2005 Net Peak Hour Persons (NPHP)	Area Required
1. Ticketing Areas		
a) Grey Goose	114	1,311 sq. ft.
b) Greyhound	97	1,116 sq. ft.
c) Beaver	16	184 sq. ft.
c) VIA	79	910 sq. ft.
2. Bus Arrival/ Departure Lounge	430	6,450 sq. ft.
3. Train Arrivals/ Baggage Pickup	166	1,990 sq. ft.
4. Train Arrival/ Departure Lounge	395	4,740 sq. ft.
5. General Circulation, Waiting and Lounge Area	300	4,500 sq. ft.

Table 3
Terminal 2005 Peak Hour Passenger Loading

Area	2005 Peak Hour Passengers(PHPS)	2005 Net Peak Hour Persons (NPHP)
1. Ticketing Areas		
(a) Grey Goose	380	114
(b) Greyhound	324	97
(c) Beaver	54	16
(c) VIA	263	79
2. Bus Arrival/ Departure Lounge	682	430
3. Train Baggage Pickup	368	166
4. Train Arrival/ Departure Lounge	263	395
5. General Circulation Waiting Lounge Areas	1,110	300

Notes

1. The number of passengers in the terminal is increased by 50% to account for well wishers and greeters, except for passengers while in ticketing areas.

2. An occupancy rate of 30% in the ticketing and VIA baggage pickup areas is assumed.

3. In order to establish the required number of ticketing stalls for each carrier, the individual carrier 2005 peak hour passenger departure volumes are used.

4. A 40% reduction in the number of peak hour persons, for general waiting areas and arrival/departure lounges is made, to reflect that most persons stay in the terminal for less than one hour.

5. An occupancy rate of 30 % of all net peak hour persons for the general circulation, waiting and lounge areas is assumed.

6. Peak hour passengers and visitors in train departure lounge are boarding a single train, therefore, an occupancy rate of 100% is used.

Table 2

Estimate of Passenger Loading In Design Year (2005)

(Figures do not include "through" passengers)

	Grey Goose	Bus Greyhound	Beaver	Sub Total	Rail VIA	TOTAL
Annual						
Arriving	259,600	361,800	101,300	722,700	175,700	898,400
Departing	283,900	371,800	109,400	765,100	183,600	948,700
Peak Month						
Arriving	25,700	61,700	10,100	97,500	23,300	120,800
Departing	28,100	61,700	10,900	100,700	23,900	124,600
Peak Day						
Arriving	1,320	2,110	410	3,840	670	4,510
Departing	1,920	2,110	440	4,470	1,160	5,630
Peak Hour (Non-Coincident)						
Total Arriving & Departing	694 (1700-1800)	486 (1900-2000)	54 (1600-1700)		688 (2100-2200)	
Terminal Design Peak Hour (1900-2000) 30th Highest Hour Annually, Total Arriving & Departing						1,110

Estimate of Vehicle Loading In Design Year (2005)

	Grey Goose	Bus Greyhound	Beaver	TOTAL	Rail VIA
Peak Day					
Arriving	51	60	19	130	5
Departing	51	59	19	129	5
Peak Hour					
Arriving	1	3	1	5	3
Departing	16	3 (1700-1800)	1	20	1 (0700-0800)

Table 1

Estimate of Passenger Loading
In Base Year (1984-85)
(Figures do not include "through" passengers)

		Bus			Rail	
	Grey Goose	Greyhound	Beaver	Sub Total	VIA	TOTAL
Annual						
Arriving	192,300	268,000	75,800	536,100	84,800	620,900
Departing	210,300	275,400	80,800	566,500	89,200	655,700
Peak Month						
Arriving	19,000	45,700	7,500	72,200	11,300	83,500
Departing	20,800	45,700	8,100	74,600	11,600	86,200
Peak Day						
Arriving	980	1,560	300	2,840	310	3,150
Departing	1,420	1,560	325	3,305	630	3,935
Peak Hour (Non-Coincident) Total Arriving & Departing	514 (1700-1800)	360 (1900-2000)	40 (1600-1700)		402 (2100-2200)	

Estimate of Vehicle Loading
In Base Year (1984-85)

		Bus			Rail
	Grey Goose	Greyhound	Beaver	TOTAL	VIA
Peak Day					
Arriving	34	40	19	93	5
Departing	34	39	19	92	5
Peak Hour					
Arriving	1	2	1	4	3
Departing	11	2 (1700-1800)	1	14	1 (0700-0800)

3.2.2 ALTERNATIVES

3.2.2.1 ALTERNATIVE ONE

GENERAL DESCRIPTION

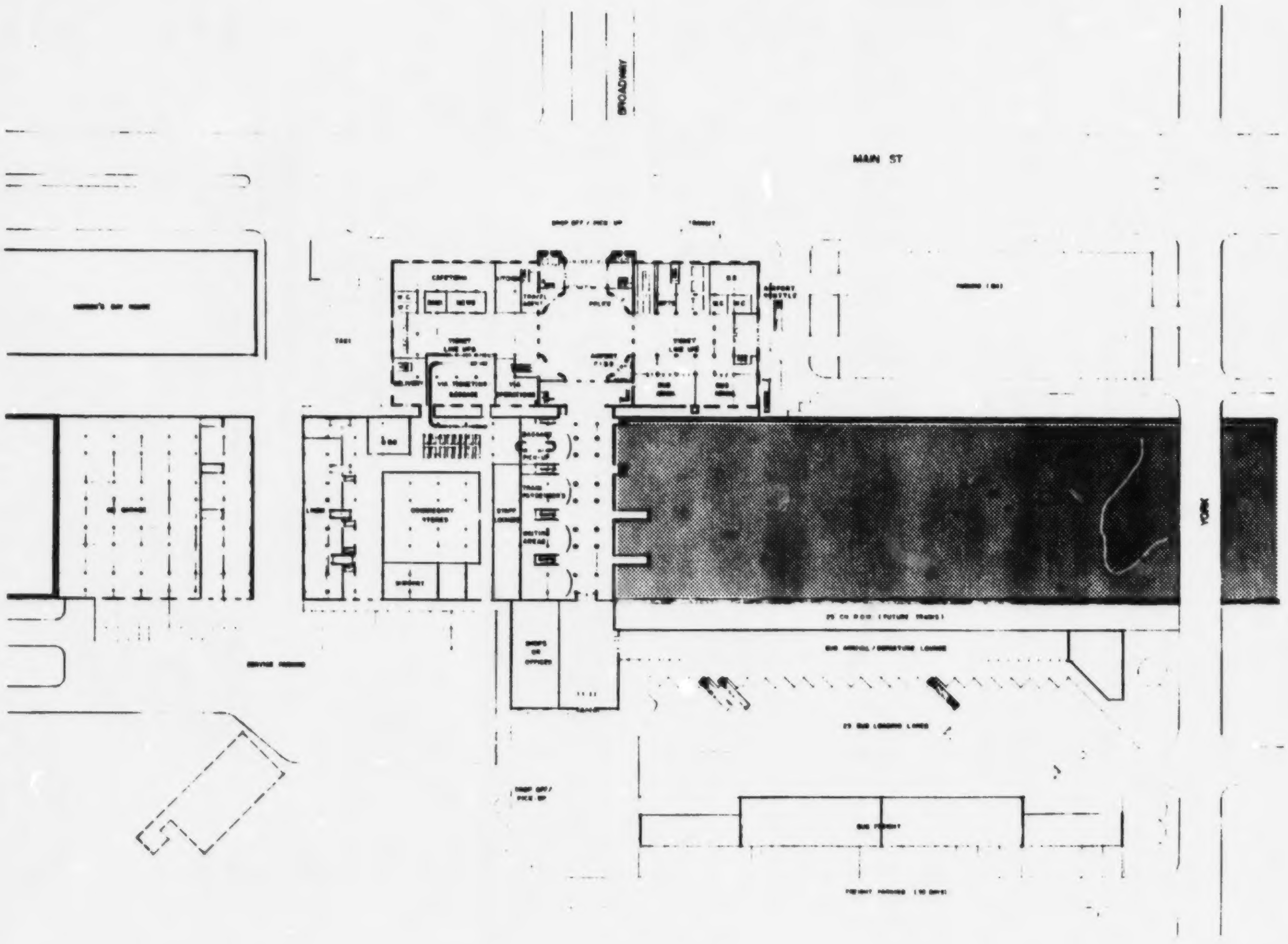
Alternative 1 utilizes the area east of the tracks in the East Yards for the bulk of the bus station facilities including bus loading areas, freight facility, freight parking and bus passenger arrival/departure lounge. All ticketing and office facilities for both bus and train carriers are located within the Union Station building. This alternative is relatively economical in that all facilities are located at grade in a one storey proposal.

Union Station

The entire ground floor of Union Station is used for bus and train passenger facilities and commercial lease areas. The North wing is devoted to the bus carriers and the commercial lease facilities. Office and ticketing areas for Greyhound and Grey Goose are located in the east section of the North Wing along with the ticket line-up areas. The west section of the North Wing is devoted to commercial facilities such as drugstore, car rental booths, gift shop, lockers and washrooms.

The Central Dome Area is utilized as general circulation/ lounge/waiting areas for passengers, well-wishers, greeters, for all carriers. In three corners of the Central Dome Area are a police office, airport F.I.D.S. display, direct airline phones and a travel agency office.

The South wing is devoted to VIA Rail passenger ticketing facilities and commercial lease areas. In the eastern portion of the South wing is a delivery loading area, VIA ticket/baggage check-in area, ticketing office area, and a VIA operation control/station master's office. The western portion of the South Wing is devoted to commercial lease. Shown in the plan as an example, are a cafeteria with kitchen, a newsstand and insta-bank station, and washroom facilities.



UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 1

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Undertrack Area

The most southerly undertrack area (CN Garage and CN Office Area) remain as CN operational areas. The remainder of the undertrack area (north of the underpass) is rearranged to house expanded VIA On-Board Services; i.e. linen, commissary stores, lockers, O.B.S. office, support areas (maintenance, utility, mechanical and electrical). Adjacent to the concourse are new train passenger waiting/boarding areas and a new baggage pick-up area for train passengers.

Parking

The land north of Union Station between the Station and York Avenue is utilized in this alternative as a surface parking area accommodating approximately 130 cars.

Bus Loading Lanes

Twenty three (23) bus loading lanes are provided on-grade to the east of the tracks in the East Yards area. The lanes are accessed from York Avenue. A bus arrival/departure lounge is located immediately adjacent to the bus loading lanes laid out in such a manner as to give visual access to all of the bus loading lanes from this area. This lounge is accessed through the undertrack concourse area. Passengers would purchase their tickets in Union Station, proceed through the concourse with the train passengers and arrive at the bus arrival/departure lounge at the end of the undertrack concourse.

CN Right-of-way

A twenty five foot (25') CN right-of-way is provided east of the existing tracks adjacent to CN's two existing freight tracks. This right-of-way is maintained for all alternatives. (After reviewing the alternatives, CN has stated that if the "east of the tracks" alternatives are developed, their minimum requirement for R.O.W. would be thirty feet [30'], rather than twenty five feet [25'])

Bus Freight

A twenty thousand square foot (20,000 s.f.) bus freight facility is located immediately east of the bus loading lanes. Thirty five (35) parking bays are provided for delivery at the freight facility. This arrangement allows for optimum layout of freight facilities relative to the bus loading lanes. That is, passengers load from the front of the bus whereas freight approaches the bus from the rear, avoiding freight/passenger circulation conflicts. It is also possible for buses to load directly at the freight facility.

Advantages of Alternative One

a) As a one-storey development it is one of the more economical alternatives.

b) This alternative provides the most optimum layout of bus loading lanes, bus freight and arrival/departure lounge, relative to each other.

c) All passenger ticketing is located together in Union Station, thereby optimizing the advantages of multi-modal passenger interchange possibilities.

d) Parking is economical to provide as it is a surface parking lot. It is also located immediately adjacent to passenger ticketing areas, minimizing the distance to walk.

Disadvantages of Alternative One

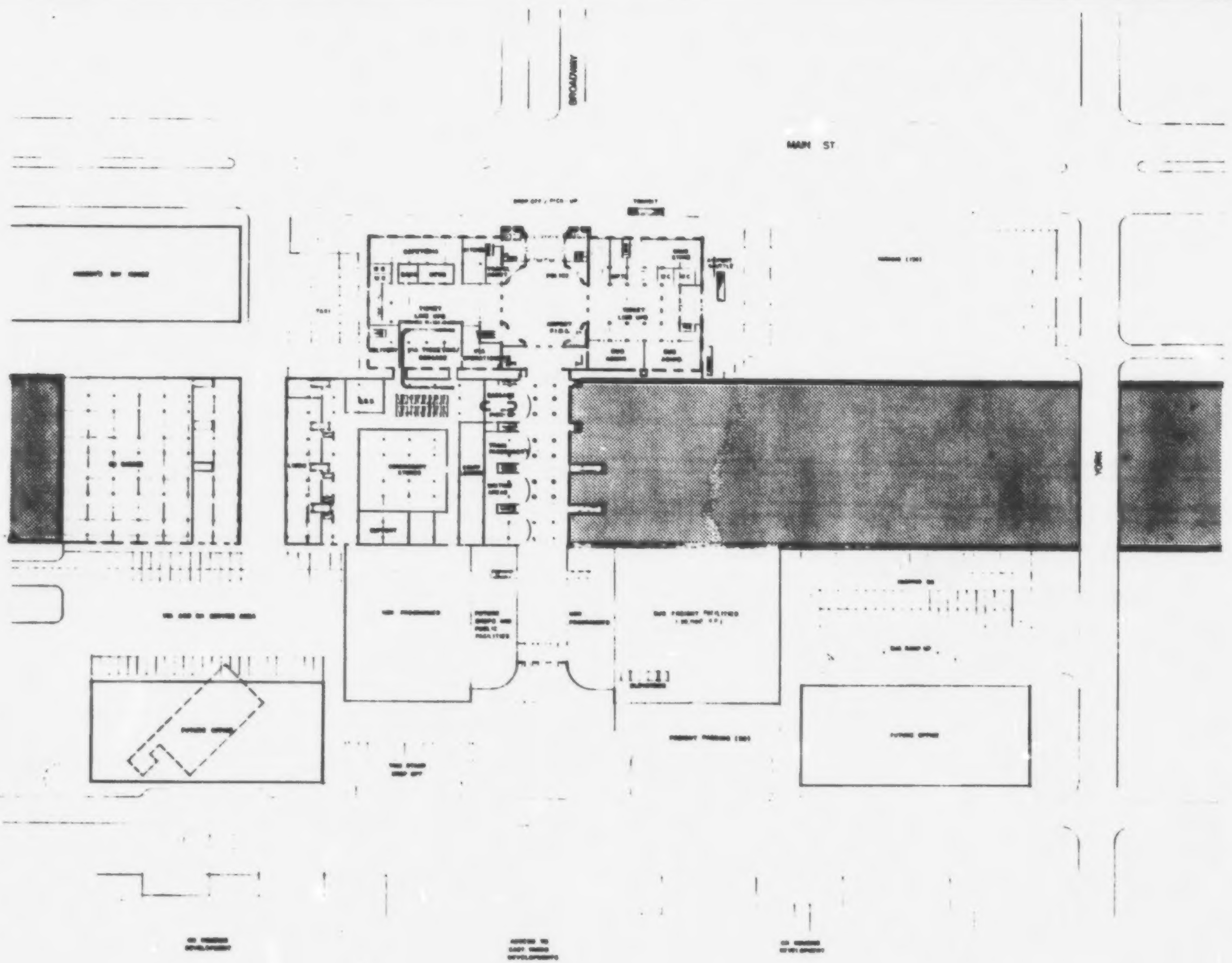
a) This alternative utilizes the most land in the East Yards, which may not correspond to CN's own plans in this area.

b) The bus arrival/departure lounge is not as close to the bus ticketing area as may be optimally desired.

3.2.2.2 ALTERNATIVE TWO

General Description

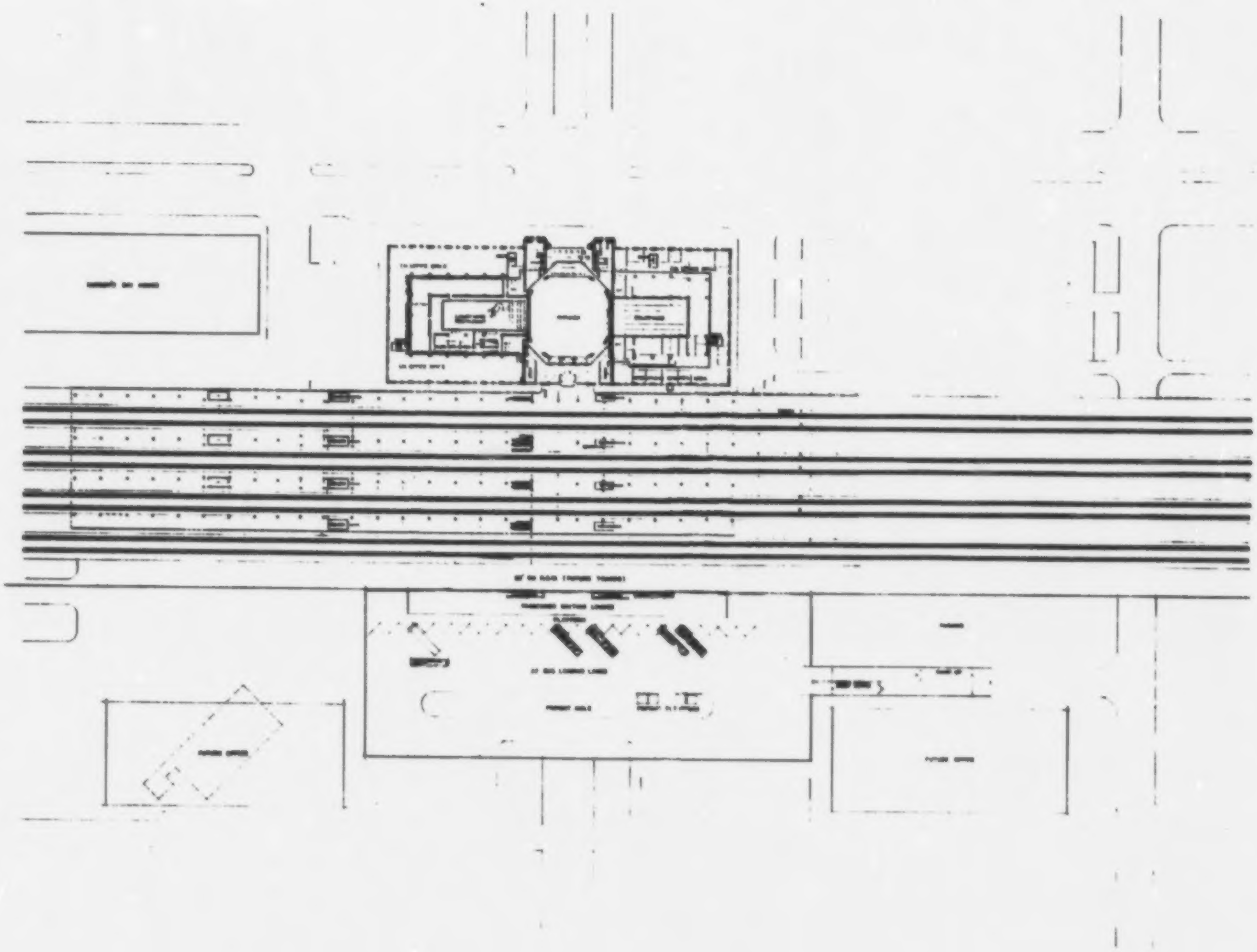
Alternative Two locates the bus loading lanes, freight facilities and passenger arrival/departure lounge east of the tracks, as in Alternative One. This alternative however, minimizes the disadvantages of Alternative One. This is accomplished by creating a two-storey development (thereby minimizing area used in the East Yards), utilizing land under CN's additional twenty five foot (25') right-of-way (further minimizing land usage), and centering the bus arrival/departure lounge to minimize the distance between it and the bus ticketing area. It is a more expensive option, but it is much more efficient in layout and much more in harmony with future CN developments in the East Yards. If these developments consist primarily of housing, it is essential that a buffer of some kind is located between the housing and the main line tracks. This buffer could consist of office developments, parking structure, or the bus station facility. The layout shown for Alternative Two illustrates how this might be achieved.



UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 2 LOWER

GABOURY ASSOCIATES ARCHITECTS



UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 2 UPPER

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ASSOCIATES
ARCHITECTS

Union Station and Undertrack Area

The layout of Union Station and the undertrack area in this alternative is identical to that described in Alternative One.

Bus Loading Lanes

In this alternative, twenty two (22) bus loading lanes are provided on a second storey platform constructed at the height of the existing mainline tracks. Bus access to and from these loading lanes is via a two way ramp from York Avenue. A passenger waiting lounge is provided immediately adjacent to the bus loading lanes. Visual access to all bus loading lanes is possible from this glass enclosed passenger waiting lounge. Bus passenger access to this waiting lounge is from the main undertrack concourse via escalators located in the same position relative to the concourse as all the existing stairs and escalators up to the tracks. In this way access to bus and train is achieved in an identical manner resulting in an equality of service and image for both bus and rail carriers. Freight is delivered to this bus loading area via freight elevators from the freight facility directly below. From the elevators, freight is distributed along the length of the bus loading lanes via a freight aisle. In this way, freight can be delivered to the buses from the rear, similar to the method used in Alternative One.

Bus Freight

A thirty thousand square foot (30,000 s.f.) bus freight facility is located on-grade directly below the bus loading lane level. Thirty (30) freight parking stalls are provided next to this facility.

Parking

Short term passenger parking is provided in the surface parking lot north of the Station as described in Alternative One. Additional parking for staff or for future office developments can be provided east of the tracks as shown in the drawing for Alternative Two. This is an example only, and other layouts are possible depending on the nature and extent of other developments in this area.

Advantages of Alternative Two

a) An efficient bus operation and layout is possible in this alternative due to the lack of space constraints found in other alternatives on Main Street.

b) The symmetry of bus and train layouts provides equality of service and image to both carriers.

c) An impressive daytime gateway to East Yards developments can be provided in this scheme through the Union Station Central Dome Area and Passenger Concourse. An impressive and functional entrance can also be provided from the East Yards side creating a double sided entry to this Multi-Modal facility.

d) This alternative provides a noise barrier between the tracks and future housing developments.

Disadvantages of Alternative Two

a) The two storey construction of Alternative Two is more costly than the on-grade construction of Alternative One (this cost will be reduced however, by the reduced cost of less land acquisition in this alternative).

b) Non-programmed space is included under the bus loading lane platform. This can be left open at present or walls can be constructed around the non-programmed space and it can be left as an empty shell until such time as space is required in this area. At that time this space can be rented out and may turn out to be an advantage in the long term.

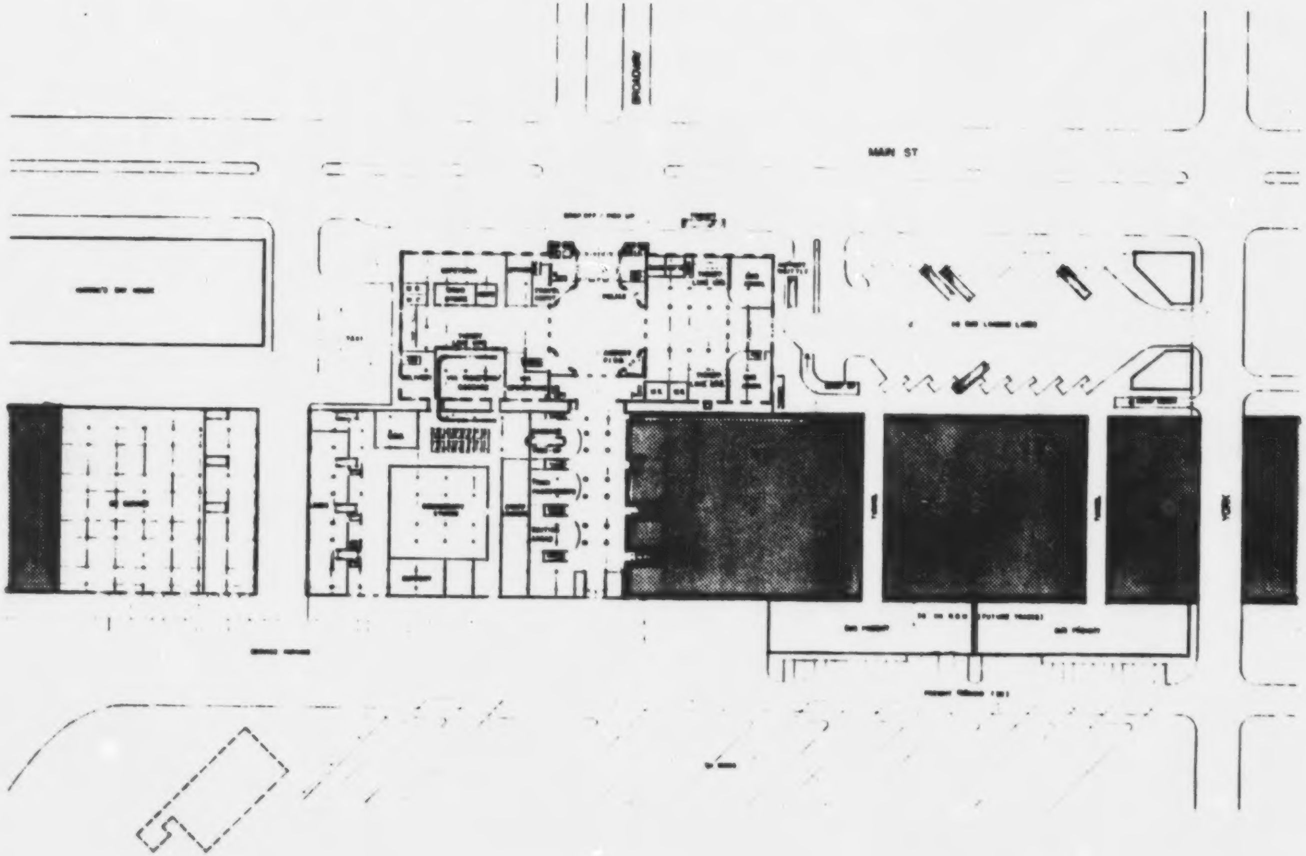
3.2.2.3 ALTERNATIVE 3

General Description

Alternative Three utilizes the area on Main Street between Union Station and York Avenue for bus loading lanes and underground parking. It is a one-storey development with all bus and train facilities within Union Station.

Union Station

The entire ground floor of Union Station is used for bus and train passenger facilities and commercial lease areas. The North Wing is devoted entirely to the bus carriers. Office and ticketing areas for Greyhound and Grey Goose are located in the northwest and northeast sections of the building. Ticket line-up areas are adjacent to the office/ticketing areas. The rest of the North Wing is devoted to the arrival departure lounge for all bus carriers. Washrooms and a gift shop are also located in this wing. The North Wing is approximately 16,200 square feet of gross space inside the exterior walls.



UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 3

GABOURY ASSOCIATES ARCHITECTS

The Central Dome Area is utilized as general circulation/ lounge/waiting areas for passengers, well wishers, greeters for all carriers. In three corners of the Central Dome Area are a police office, airport F.I.D.S. display, direct airline phones and a travel agency office.

The South Wing is devoted to VIA Rail passenger ticketing facilities and commercial lease area.

In the eastern portion of the South wing is a delivery loading area (ticket/baggage check-in area, ticketing office area, and the VIA Operation Control) Station Masters Office.

The western portion of the South Wing is devoted to commercial lease. Shown in the plan as an example is a cafeteria, kitchen, newstand/confectionary, automated banking facility, and washrooms.

Undertrack Area

The most southerly undertrack area (CN garage and office area) remains as CN operational area. The remainder of the undertrack area (north of the underpass) is rearranged to house expanded VIA On Board Services i.e. linen, commissary, lockers, O.B.S. office, support areas (maintenance, utility mechanical and electrical). Adjacent to the concourse are new train passenger waiting/ boarding areas and a new baggage pick-up conveyor area.

Bus Loading Lanes

The area north of the station on grade is devoted entirely to bus loading. Twenty-two buses can be accommodated. This is a totally exterior function although a roof over the entire area is provided for rain and snow protection.

Parking

To accommodate short term parking an underground parking facility should be provided under the bus loading lanes. This facility should accommodate approximately 100 - 120 cars.

Bus Freight

A 20,000 square foot freight handling area for both Greyhound and Grey Goose is located east of the tracks. Space for thirty two (32) delivery vehicles (24 cars, 8 vans) is provided adjacent to it. This area is connected to the bus loading lanes by two new tunnels under the tracks. It is anticipated that motorized carts will pull the freight wagons from the freight facility under the tracks and service the buses from the rear so that passenger waiting areas on the platform will not be disrupted.

Advantages of Alternative Three

a) As a one storey development it is one of the more economical alternatives.

b) Minimum land is used.

c) The East Yards area is left for CN development with the exception of the minimal area used by the freight facility. The addition of tracks for CN freight lines can be built over this area since it can be structured to accommodate the loading of the trains.

d) All passenger facilities are located together in Union Station enhancing the advantages of the Multi-modal concept.

Disadvantages of Alternative Three

a) Bus passengers do not see the buses from the arrival/departure lounge and must go outside to the bus loading lanes.

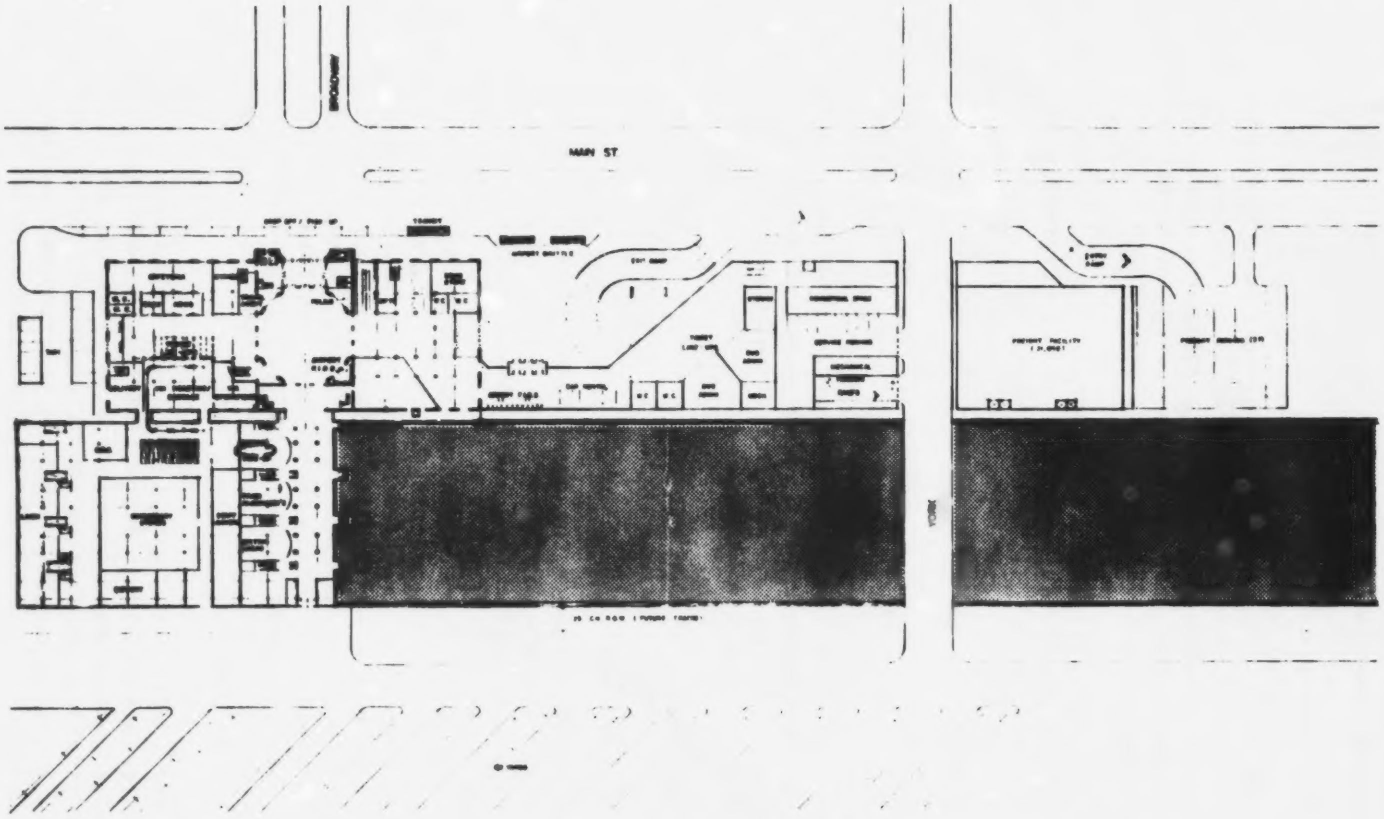
b) Due to the concentration of passenger facilities in Union Station, commercial lease areas (passenger amenities) are minimized.

3.2.2.4 ALTERNATIVE FOUR

General Description

Alternative Four locates the bus loading lanes on a second storey platform that stretches across York Avenue. This is the only alternative that allows for direct connection between the bus loading lanes and a future Southwest Transit Corridor. Ramps are shown at either end of the bus loading platform connecting it to Main Street. If the Southwest Transit Corridor is not in place at the time of construction of the bus facility, these are the ramps that would be used. If however, the Southwest Transit Corridor was constructed first, then these ramps would not be used and the ramps shown in dotted lines connecting the platform with the Southwest Transit Corridor (located on tracks 1 & 2) would be utilized.

If the bus facility and associated ramps connecting it to Main Street are constructed now, and the Southwest Transit Corridor is constructed some time in the future, then it is theoretically possible, although expensive, to demolish the Main Street ramps and construct new ramps connecting the bus facility to the Southwest Transit Corridor.



N

UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 4 LOWER

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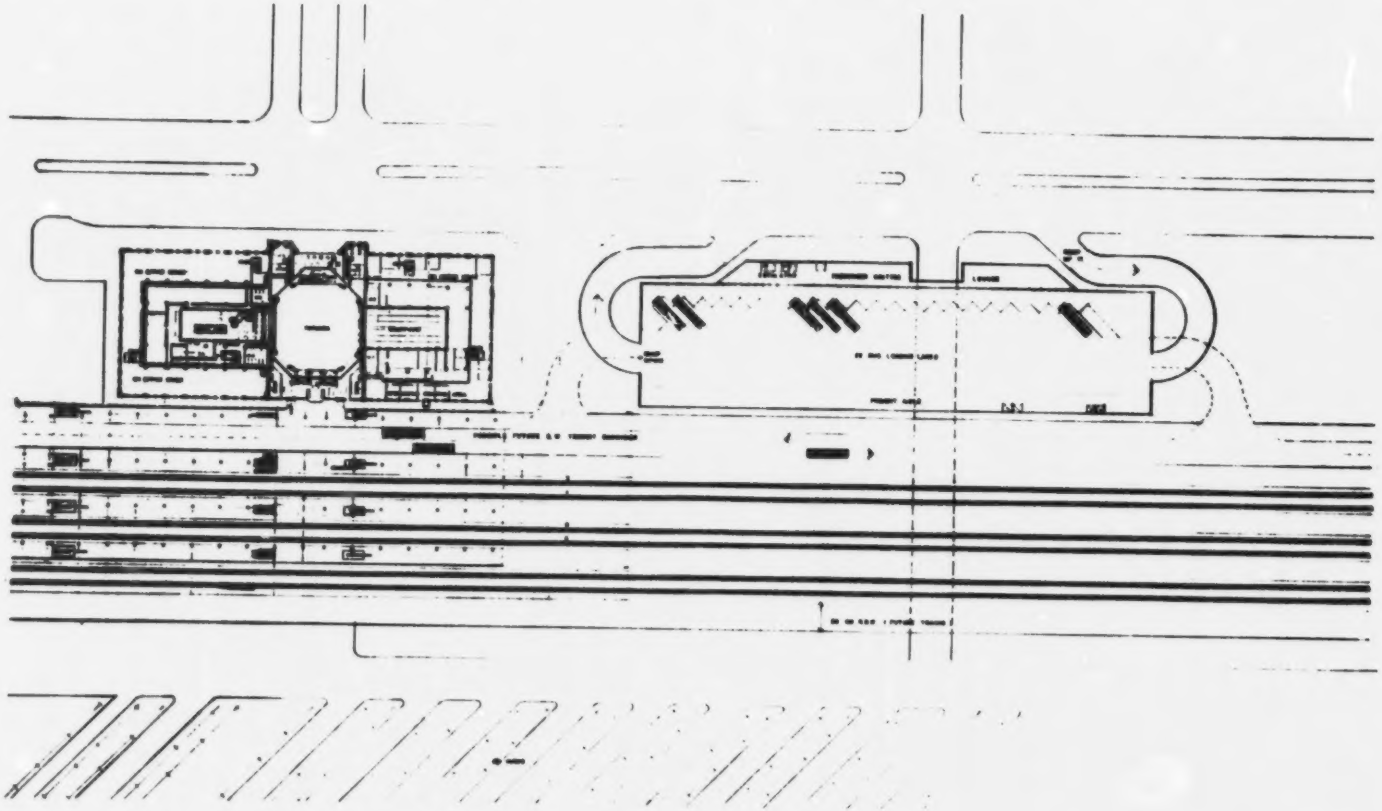
ASSOCIATES
ARCHITECTS



N

UNION STATION MULTI-MODAL STUDY

ALTERNATIVE 4 UPPER

GABOURY ASSOCIATES ARCHITECTS

Union Station

In this alternative the South Wing of Union Station is identical to that described in the other alternatives, that is consisting of VIA Rail ticketing facilities and commercial facilities. The North Wing can remain largely as existing. The only changes that need to be made are those that are needed to accommodate the link with the bus station facilities. The west side of the North Wing can be renovated to new commercial facilities as the demand dictates.

Undertrack Area

The undertrack area for this alternative is identical to the undertrack layout described in Alternative Three.

Bus Loading Lanes

Twenty two (22) bus loading lanes are shown on the second storey platform above York Avenue. A passenger arrival/departure lounge is shown adjacent to the bus loading lanes with glazing on both sides providing a view to Main Street as well as to the bus platforms. Escalators connect the bus arrival/departure to the bus ticketing areas below. Freight is brought up to the bus loading area from the freight facility below via elevators. It is then distributed to the buses via a freight aisle adjacent to the existing tracks and then to the individual buses approaching to the rear, thus avoiding a passenger freight circulation conflict. The height of this second storey platform above grade is critical in that it affects the length of the ramps which have a considerable influence on the overall layout. We do not have access to accurate surveys pinpointing spot elevations of the existing tracks above grade and of the height of the tracks above the York Avenue underpass. These will be important if this alternative is explored further.

For the present, we are assuming a sixteen foot (16') clearance from grade to the underside of the second storey platform. This puts the platform approximately seven foot six inches (7'6") above the existing mainline tracks, necessitating a ramp of approximately seventy six feet (76') in length in order to connect the platform to a Southwest Transit Corridor lane located on tracks 1 & 2. Assuming a three foot (3') depth of platform structure and a one in ten slope, the ramp connecting the platform to Main Street would be one hundred and ninety feet (190') in length.

These dimensions become critical to feasibility in this alternative.

Parking

In this alternative the closest possible location of parking to ticketing facilities is underground between Union Station and York Avenue. Access to this parking area would be via York Avenue. Exit from the parking area is also onto York Avenue immediately adjacent to the entrance to the parking area. Parking is therefore the lowest level of a three storey development with parking underground, bus ticketing facilities at grade and bus loading on a second storey platform. Each of these areas has different structural requirements and constraints all of which must be coordinated.

Bus Freight

In this alternative a twenty thousand square foot (20,000 s.f.) bus freight facility is located north of York Avenue on Main Street. Delivery and parking areas are located north of the facility with access north of Main Street. Approximately three hundred and thirty feet (330') frontage is required for freight and parking north of York Avenue. This area is connected to the bus loading lanes by freight elevators.

Advantages of Alternative Four

a) This is the only alternative that allows for the connection of the bus loading lanes directly to the Southwest Transit Corridor, if it is located on tracks 1 and 2.

b) All the bus facilities are located near each other in one structure.

c) The East Yards area is left exclusively for CN developments.

Disadvantages of Alternative Four

a) This alternative uses the most Main Street frontage of any of the alternatives and will therefore be costly in terms of land acquisition.

b) The ramp exits and entries as well freight exits and entries create the number of curb cuts on Main Street in the area of York Avenue that make pedestrian use of the sidewalk somewhat difficult.

Disadvantages of Alternative Four (continued)

c) Dimensional constraints coupled with long ramp dimensions and headroom clearance requirements will make feasibility more difficult to ascertain until final design drawings are underway.

d) Different structural constraints of the three different levels; i.e. long span roof, heavy loading on bus loading platforms, and dimensional constraints on structure between parking aisles, may tend to compromise efficiency of either layout or structural design.

e) The complete separation of bus and rail facilities somewhat reduce the convenience to the travelling public that is inherent in the concept of a Multi-Modal center.

PHASE III
CONCEPTUAL PLAN DEVELOPMENT

4.0 PHASE III - CONCEPTUAL PLAN DEVELOPMENT

4.1 INTRODUCTION

The purpose of Phase III is to develop a conceptual plan for a Multi-Modal facility at Union Station. As per the terms of reference, this plan will determine the type and amount of necessary modifications required to the site and building to satisfy overall needs of the travelling public and the carriers.

During the previous phase we developed four alternatives for a Multi-Modal facility at Union Station. At the conclusion of Phase II, one of the four alternatives was chosen for development in Phase III. The one which was deemed to be the most appropriate for development was Alternative Four. This alternative located bus carrier facilities to the north of Union Station along Main Street.

The Advisory Committee discussed the pros and cons of each of the alternatives. Plan no. 4 seemed to be the most acceptable as far as the majority of the Advisory Committee was concerned. There were a number of reasons for choosing this alternative, however the main advantages and reasons for selecting Alternate 4 are as follows:

.1 CN could not at present commit itself to giving up any land in the East Yards for a bus carrier facility, which it was felt may not be compatible with CN's own development in the East Yards. However, Mr. Rybuck, the CN representative, stated that he would discuss the matter further with CN authorities. Since these discussions and concrete decisions on CN's plans for East Yards development cannot be anticipated within the time frame of this study, the alternatives which locate bus facilities in the East Yards (Alternatives 1 and 2), were effectively removed from further consideration in this study.

.2 In Alternative Four all of the bus facilities are located near each other in one structure, which is a positive feature to the bus carriers. The high profile Main Street location is also a positive feature for the bus carriers image.

.3 This alternative is the only one that allows for the connection of the bus loading lanes directly to the Southwest Transit Corridor, if it is located on Tracks 1 and 2.

.4 In terms of urban planning, this Main Street location for the bus facility is a compatible land use with the adjacent existing Union Station rail facility, with anticipated future developments north of Broadway, and with tourist developments in the East Yards.

Although Alternative Four was deemed to be the most appropriate for development in Phase III, there were several disadvantages that were mentioned at the Advisory Committee meeting, which are worthy of note.

.1 This alternative may be more costly in terms of Main Street land acquisition and construction of the two-level plan.

.2 The ramps as well as bus freight exits and entries create a number of curb cuts on Main Street that are not desirable in terms of transportation planning (some of these curb cuts will be eliminated if bus access to the facility is linked directly to the possible Southwest Transit Corridor location on Tracks 1 and 2).

.3 The separation of bus and rail facilities duplicates, to a certain extent, some of the possible joint uses and does not offer some of the advantages that might be obtained in a fully integrated concept.

Some of these disadvantages are inherent in this alternative, but may be minimized in the planning and design stages.

4.2 SUMMARY OF PHASE III WORK

4.2.1 ALTERNATE ACCESS POSSIBILITIES

The best functional arrangement of facilities in terms of circulation patterns and access, would occur if bus access could be from the proposed Southwest Transit Corridor on Tracks 1 and 2 (the preferred location recently proposed by consultants working on the S.W.T.C. study). Our development plan was therefore based on this optimum circulation pattern and access situation. It assumes either:

.1 The construction of the S.W.T.C. prior to implementation of the Multi-Modal facility or:

.2 The construction of only the most northerly 1000 feet of the S.W.T.C. (from the Multi-modal facility to Main Street) in conjunction with the development of a Multi- Modal facility.

However there are two mitigating circumstances:

.1 Concerns regarding the timing of the Southwest Transit Corridor implementation. As indicated in our analysis, the Southwest Transit Corridor is considered by many parties to be a logical and beneficial addition to Winnipeg's transportation network, however funding problems have lead to uncertainty regarding the timing of the implementation of this project.

.2 VIA Rail has concerns regarding the loss of Tracks 1 and 2 to make way for the S.W.T.C. These concerns relate to the need for train car maintenance space as well as short term storage of cars. VIA has stated that their willingness to give up Tracks 1 & 2 is contingent upon their acquiring alternate maintenance and storage tracks elsewhere.

Both of these concerns may be answered in the future, but this study cannot assume a positive resolution of the concerns; therefore, we have developed a multi-modal facility Development Plan Alternative that assumes one or the other of these concerns has not been met by the time of implementation of the Multi-Modal Project. This alternative therefore assumes bus access ramps to and from Main Street, with the possibility of additional ramps being constructed to the S.W.T.C. if and when that project is implemented. This alternative is not the preferred development for the following two reasons:

.1 Curb cuts and access ramps to Main Street would be disruptive to pedestrian and vehicular traffic flow on that street, and are not encouraged by the City's Street and Transportation Department.

.2 There would be duplication of costs in the demolition of the Main Street ramps and construction of new ramps to the S.W.T.C. when that project is implemented.

We have therefore developed two sets of plans for Phase III.

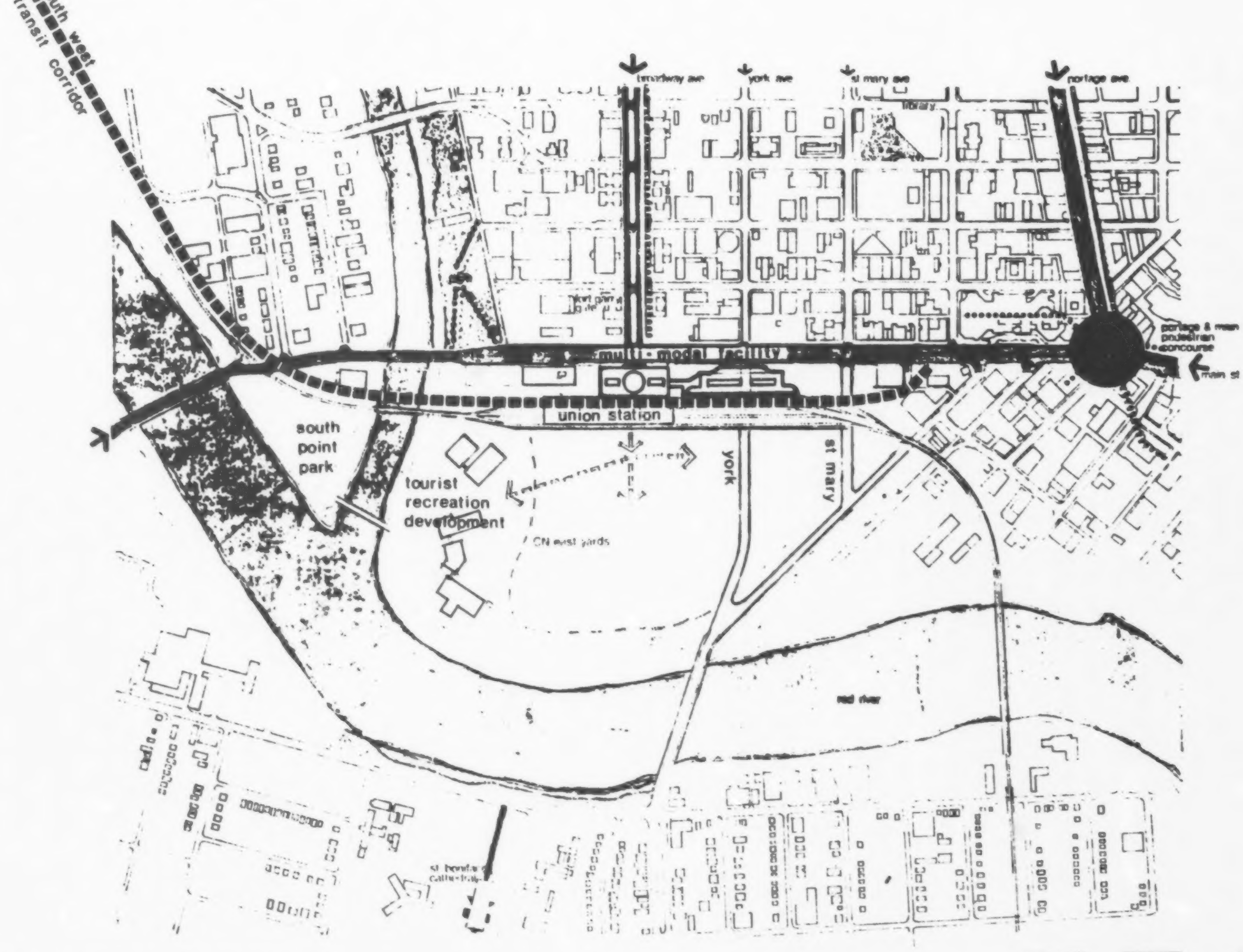
.1 DEVELOPMENT PLAN:
(based on S.W.T.C. implementation)

.2 ALTERNATE DEVELOPMENT PLAN
(based on Main Street access and possible future S.W.T.C implementation)

4.2.2 CONCEPTUAL DEVELOPMENT PLAN

4.2.2.1 The methodology for developing this conceptual plan was to refine the schematic plan of Alternative Four in the following areas:

.1 Technical aspects of transportation planning
.2 Circulation patterns
.3 Efficiency of layout
.4 Functional relationships
.5 User requests
.6 Architectural development



URBAN CONTEXT
MULTI-MODAL FACILITY - DEVELOPMENT PLAN

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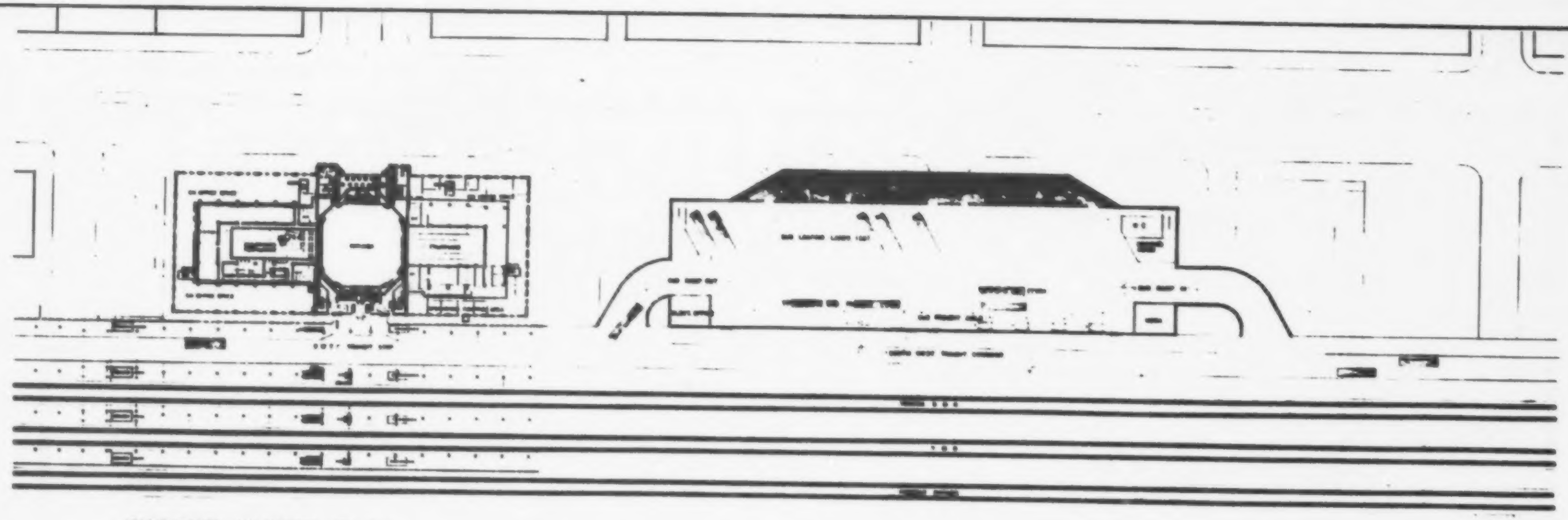
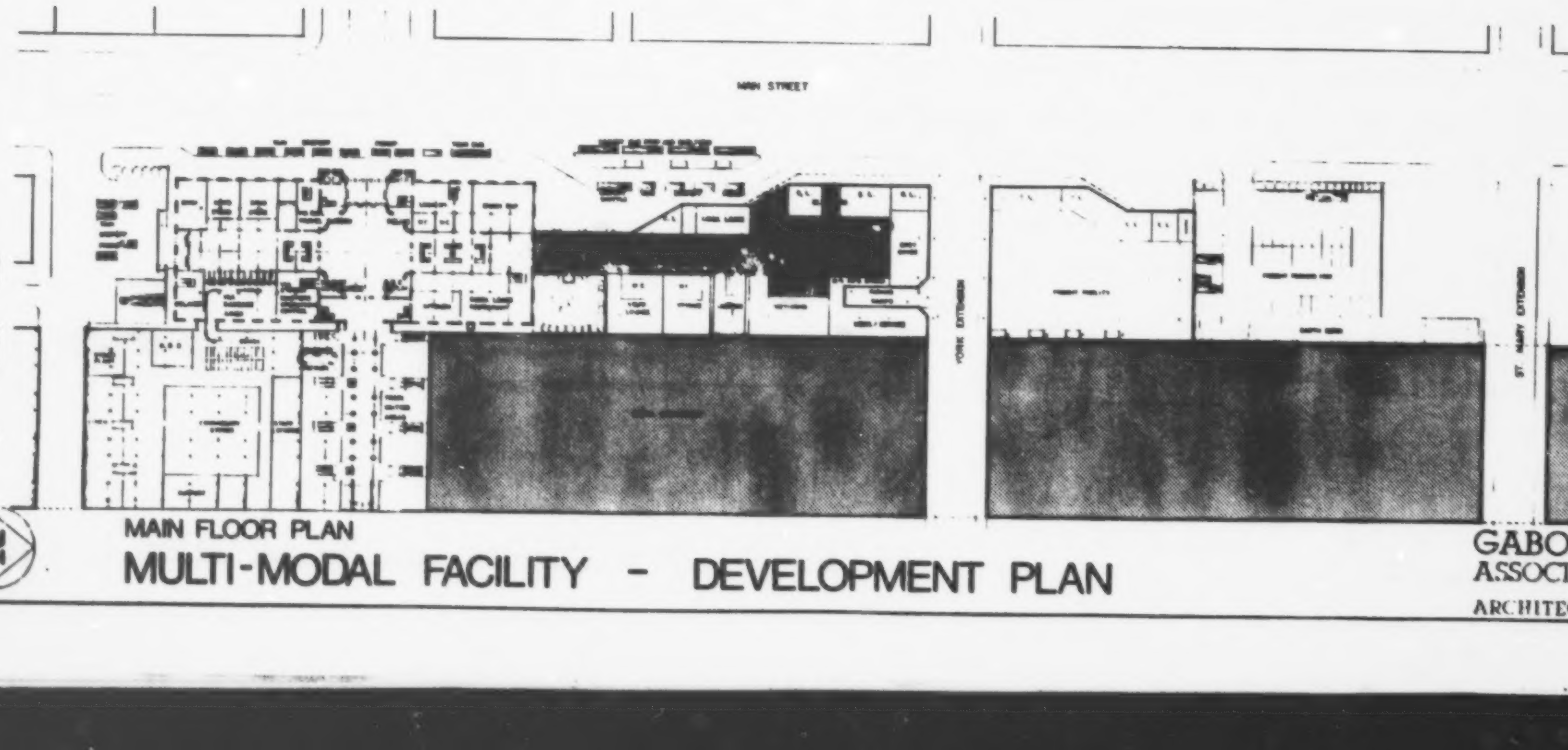


SECOND FLOOR PLAN



MAIN FLOOR PLAN

MULTI-MODAL FACILITY - DEVELOPMENT PLAN

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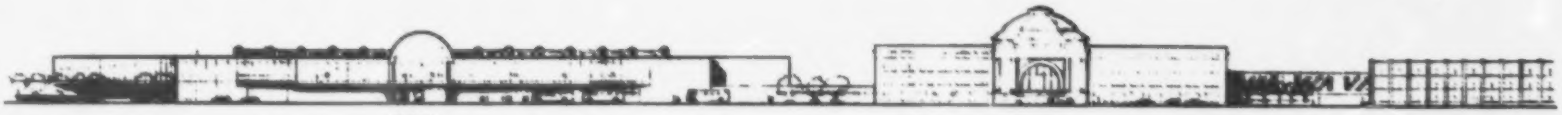
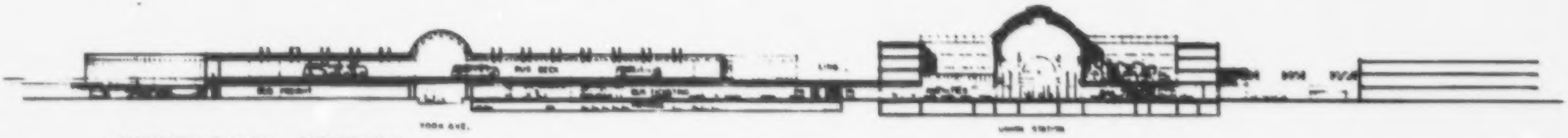
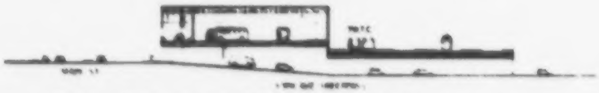


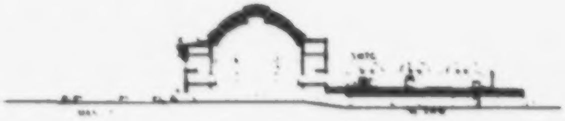
MAIN STREET ELEVATION



LONGITUDINAL SECTION



SECTION THROUGH BUS FACILITY



SECTION THROUGH UNION STATION

MULTI-MODAL FACILITY - DEVELOPMENT PLAN

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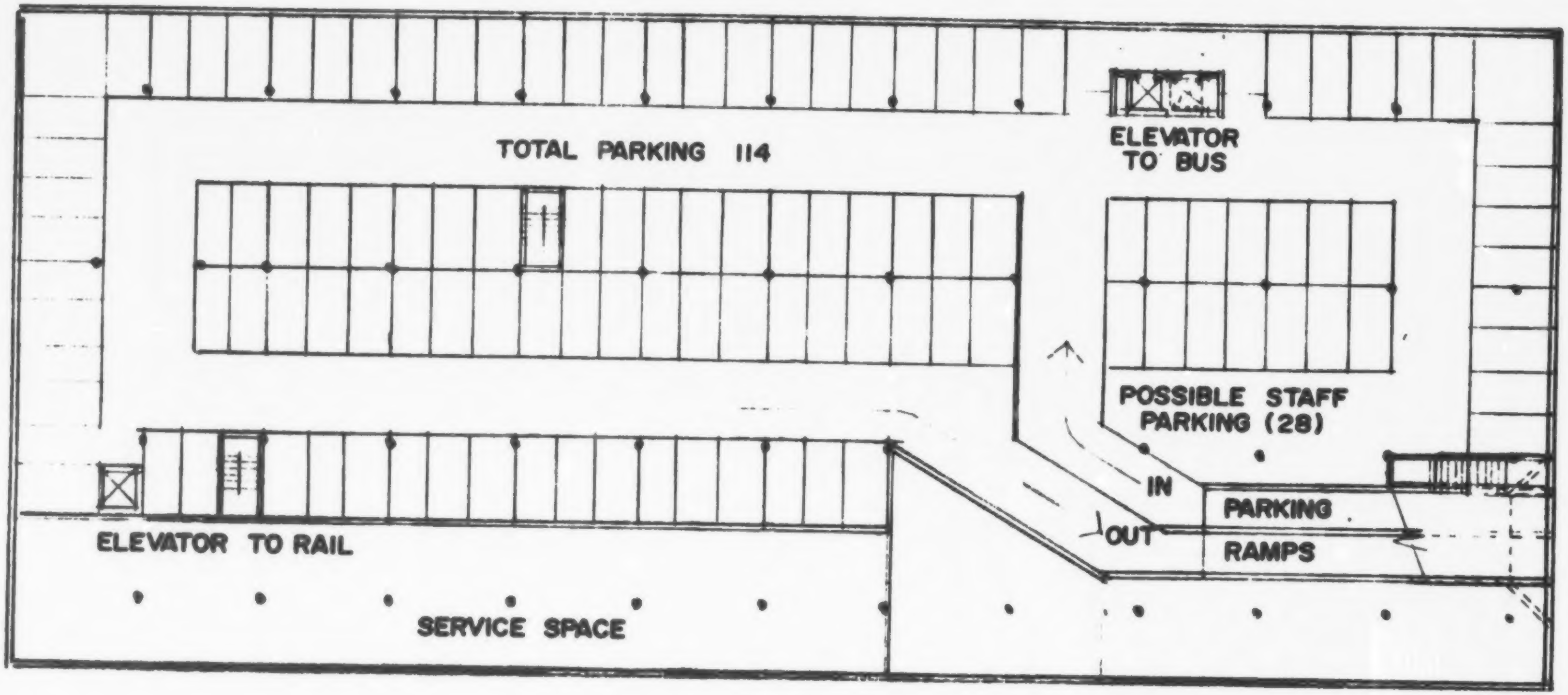

PARKING LAYOUT UNDER BUS FACILITY

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The objective was to emphasize the advantages of Alternative Four and also to minimize the stated disadvantages.

4.2.2.2 LEVEL 2 - BUS LOADING DECK

The basis for this plan is a second level bus loading deck stretching north from Union Station across York Avenue. Bus access to this deck is from the beginning of the S.W.T.C. located on Tracks 1 and 2. In order to allow the sixteen foot (16') clear head room above York Avenue, the floor level of the bus loading deck is at twenty feet (20') above York Avenue [utilizing an estimated four foot (4') depth of structure]. This would put the bus loading deck approximately seven feet (7') above the new Southwest Transit Corridor lane. Access to the bus loading deck would therefore be by ramps from the S.W.T.C. as shown in the second floor plan drawing. The circulation pattern would be a one-way flow of buses from the north entrance ramp through to the south exit ramp. The entry and exit routes have been designed so that buses can approach from either a northerly direction or a southerly direction, and they may also exit in a northerly or southerly direction.

There are twenty three angled bus parking bays for passenger loading as well as room for six buses to be parked for temporary storage or waiting. As well as the passenger loading platform, a passenger waiting lounge has also been provided at this level. It is linear in layout with a glass wall between it and the bus loading bays so that waiting passengers can have visual contact with each of the bus loading bays. There will also be a continuous window strip on the outside wall of the waiting lounge giving passengers a good view up and down Main Street. A design feature inherent in this scheme is the passenger waiting lounge overlook of the York Street intersection, since the waiting lounge straddles over and across York Avenue. Both escalators and elevators lead down from the waiting lounge to the ticketing area directly below.

On the easterly side of the bus loading deck is a linear freight aisle stretching the length of the building. Freight is delivered to this aisle via four freight elevators which can accommodate carts and motorized wagons. These carts can then be driven down the freight aisle to the rear of whichever bus they are to serve. This allows for the most efficient delivery of freight to the buses, without any cross-over of circulation between freight paths and passenger paths.

The entire second level will be weather protected and covered by a long span roof system. This roof would also extend over the access ramps so that they are protected from snow, ice and rain. A wall would also extend along the entire perimeter of the building (and access ramps) to complete the weather protection.

4.2.2.3 BUS TICKETING AREA

Directly beneath the second level bus loading deck, south of York Avenue, is the main bus ticketing facility. As shown on the main floor plan drawing, it consists of administrative areas and ticketing areas for Grey Goose and Greyhound as well as bus information boards, waiting areas, lockers, storage and service areas, staff lounge, washrooms, and some commercial lease space. The ticket line-up areas surround a bus lobby space that will be the central waiting area and general crush space for bus passengers entering or exiting the facility.

The entry into the bus facility is directly from Main Street to this bus lobby. This space acts as a pedestrian anchor at one end of the Multi-Modal facility as a balance to the space under the dome of Union Station at the other end of the Multi-Modal facility. It is also the space that will give the bus carriers their own image and identity. The bus ticketing areas in the lobby are joined to Union Station via a concourse and glazed link. This link is a secondary entrance and can also act as a space for many tourist and public functions such as tourist information, car rental booths, flight information display (F.I.D.S.), for airport arrivals and departures as well as direct telephone access lines.

4.2.2.4 UNION STATION BUILDING

The main functions on the ground floor of Union Station are VIA Rail facilities, rail passenger ticketing facilities, and passenger amenities to be used by both bus and rail passengers. As discussed in previous sections of this study, complete development of the ground floor of union station is contingent on CN relocating its medical and office facilities to other locations. The south side of the station contains the bulk of VIA Rail's facilities. There is a VIA ticketing and baggage area complete with airport style ticket baggage counters, a conveyor belt to take baggage through to the undertrack area for delivery to the trains, a VIA operations control area, a VIA station master's office and VIA Rail Travel Bureau.

There is also room in the south wing for some passenger amenities such as a bank, newsstand, drugstore and giftshop. A delivery room for the Union Station building is also located in the southeast corner of the main floor.

The main entrance and central dome area will retain the same function as they have at present; that is as a central gathering/waiting area, and in addition will, in future, be the main gateway to the East Yards and Riverbank tourist developments.

The north wing of Union Station will be joint use passenger amenities used both by bus and rail passengers as well as the general public. The most used and active amenities would be those related to food services, i.e. quick service snack bar, and full service restaurant. If, during the course of the development of this project there is a high demand for commercial lease space in the facility, then the restaurant area could be subdivided and used for other commercial lease functions and the restaurant could be located on the second floor of Union Station in the south courtyard as shown in the second floor plan and building sections. If there is no great demand for commercial lease facilities then the restaurant could remain in the northeast corner of the ground floor as shown on the main floor plan.

4.2.2.5 UNDERTRACK CONCOURSE

Extending east from the central dome area is an undertrack concourse that leads directly from Main Street to the dome area under the tracks to the East Yards. In future, this area will serve two functions:

.1 As a rail passenger distribution area leading from the train platforms into Union Station
.2 As a public concourse to the East Yards developments.

The ultimate design of this area will depend upon on the extent of public usage of this concourse once the East Yards are developed. VIA Rail has already begun some renovations to the concourse for rail passenger waiting areas. Two escalators have already been installed from the concourse up to the main platform areas as shown on the drawings.

4.2.2.6 UNDERTRACK SERVICE AREAS

There presently exists an extensive area under the tracks used by CN and VIA Rail for service functions. It is anticipated that while change of use and layout will occur in order to increase efficiency, this area will remain as a service area for the rail carriers. The main floor plan drawing shows a proposed renovation to this area that will increase efficiency and be more suitable to the functions of on-board services, baggage distribution, and staff facilities.

Rail passenger baggage that is being delivered to the trains, goes from the ticket baggage counter via conveyor to baggage carts in the undertrack area. These baggage carts are then taken via elevator up to the platform area and onto the trains. In the reverse direction, baggage being taken off the trains is transported by baggage cart from the platform down the elevators to the undertrack area, where it is taken to the passenger baggage pick-up area adjacent to the concourse. This baggage pick-up area could consist of a conveyor loop such as is found in many airport facilities.

4.2.2.7 BUS FREIGHT FACILITIES

A major part of the bus carriers operation is the delivery of freight. A sizable increase in area from the existing facility was requested. The conceptual development plan locates these facilities north of York Avenue on the main floor under the bus loading deck. A twenty four thousand square foot (24,000 s.f.) freight facility is provided. Access to the facility is from Main Street into a freight parking area with a capacity of approximately forty six vehicles. Both cars and trucks can be anticipated.

The public would deliver their freight parcels and packages to the freight facility where counters would be operated by both bus carriers. The parcels would then go to the sorting facilities of the carriers and then on baggage carts (possibly motorized carts) up the freight elevators to the freight aisle at the bus loading deck. This is an identical operation to that existing in Union Station for the rail carriers.

Four elevators are provided to ensure uninterrupted flow of freight as well as to provide a contingency in the case of one of the elevators being out of commission for maintenance.

4.2.2.8 VEHICULAR APPROACHES

The design of vehicular approaches to the Multi-Modal facility is influenced heavily by existing and future site constraints. There is little available land for surface parking, transit facilities, taxi stands, or pick-up and drop-off facilities. However it is possible to accommodate most of the vehicular demands by taking advantage of the areas that are not used for the buildings themselves. The curb cut in front of Union Station must remain as a prime taxi stand and pick-up/drop-off area for Union Station. This is the most direct pick-up/drop-off area available.

A small parking area south of Union Station can accommodate approximately twelve cars for short term parking. It is proposed that two or three of these parking stalls be allocated for taxis and the rest for short term parking for drop-off and pick-up. This area is the closest to VIA Rail's ticketing counter.

North of Union Station along Main Street there is some available land left by the configuration of the bus facility building that could be well utilized for additional drop-off/pick-up areas. As shown in the main floor plan this is achieved by creating a transit island complete with transit shelters and room for three transit buses as well as the airport shuttle bus. This is a similar layout to that existing at the Winnipeg International Airport.

The driveway created by the traffic island could then accommodate approximately six vehicles. It is suggested that two of these spots be allocated for taxi stands; the remaining four for pick-up and drop-off by private automibiles. This area is closest to the bus carriers ticketing area.

Long term parking is accommodated in an underground parking structure north of Union Station under the bus facility. Access to the parking level is via ramps from York Avenue. The City of Winnipeg, Streets and Transportation Dept. are anticipating that the extension of York Avenue under the tracks will be a three lane roadway, according to drawings received from that department. We are suggesting that in order to accommodate the traffic turning into the parking structure, a fourth lane could be added to York Avenue in this area as shown on the conceptual plan drawings. There would therefore be little or no disruption of traffic flow caused by this parking lot access. Public access from the parking lot to the Multi-Modal facility would be via the elevators and stairs provided as shown on the plan.

4.2.2.9 AIRPORT LINKAGE

As discussed in the previous phases of this study, the benefits of a Multi-Modal facility would be increased by some form of tie-in with the airline mode. Several feasible methods of linking the airlines to the Multi-Modal facility were discussed and have been incorporated into the Development Plan.

An unstaffed "Airline Link" facility has been located in the link between the Union Station and the new bus facility. This location is half-way between the bus and rail carrier facilities.

The "Airline Link" has been designed as a circular kiosk-type structure approximately 15 feet in diameter. Around the top of this structure would be a series of television monitors with airline arrival departure information that is constantly being updated (F.I.D.S. Flight Information Display Screen). Below these would be twelve direct line telephones to the various airlines. Using this Airline Link therefore a passenger could check the times of flights and make a reservation.

Then to get to the airport, space for an airport shuttle bus has been provided outside the Multi-Modal Facility directly opposite (and within viewing distance of) the "Airline Link" service. It is anticipated from past experiments with this type of shuttle service that a smaller twenty passenger bus running at approximately 20 minute intervals would be the most economical way to provide this service.

Of course, the system works similarly in reverse, with airline passengers continuing their trip by rail or bus carriers (presumably to towns not serviced by airports) being able to take the shuttle bus from the airport directly to the Multi-Modal facility. The possibility also exists for this shuttle to stop at Portage Avenue and the major hotels for the convenience of passengers and the cost effectiveness of the operations.

In terms of capital expenditure in the construction of the Multi-Modal Facility the Airport Linkage would be very economical to include.

4.2.2.10 LEGAL ASPECTS OF OWNERSHIP AND USE OF THE SOUTH WEST TRANSIT CORRIDOR

Although Winnipeg Transit has agreed to consider use of the S.W.T.C. by the Intercity Bus Operators, the legal aspects of funding, ownership and use of the corridor have yet to be finalized. If the two projects (S.W.T.C. and the Multi-modal Facility) proceed to implementation planning stages, then the legal implications (and related cost implications, if any) of use of the corridor by the bus companies, will have to be discussed and resolved at that time.

4.2.3 ALTERNATE DEVELOPMENT PLAN

As mentioned in previous sections of this report, the concerns regarding the timing of the Southwest Transit Corridor implementation, as well as VIA Rail's concerns regarding giving up tracks 1 and 2, are the chief reasons for developing this Alternate Development Plan. It is therefore based on Main Street access to the bus facility by intercity buses, with the possibility of connecting to the S.W.T.C. at some time in the future, if the implementation of the Corridor becomes feasible and acceptable at a later date.

4.2.3.1 SECOND FLOOR PLAN

As shown on the second floor plan drawing of the Alternate Development Plan, the only change from the Development Plan is that the ramps to the Southwest Transit Corridor have been deleted and two new semi-circular ramps to Main Street have been provided. The passenger waiting area at this level has been marginally reduced in length to allow for adequate bus headroom at the bottom of the ramps. Due to the fact that the ramps will have a roof and walls surrounding them for weather protection, the appearance of the building will be changed considerably from the development plan, however this is not seen to be a major problem.

If and when the S.W.T.C. is implemented these ramps would have to be demolished along with the roof and walls of the ramps and new ramps constructed in the location shown by dotted lines on the second floor plan. One of the chief concerns in this regard is the necessity of replacing the Main Street ramps with the S.W.T.C. ramps without interruption of bus carrier operations. This factor would play a critical role in the physical design of the ramps and their connection to the bus loading deck. Technological solutions such as prefabrication would have to be considered in order to ensure minimum disruption of service while the ramps were being altered.

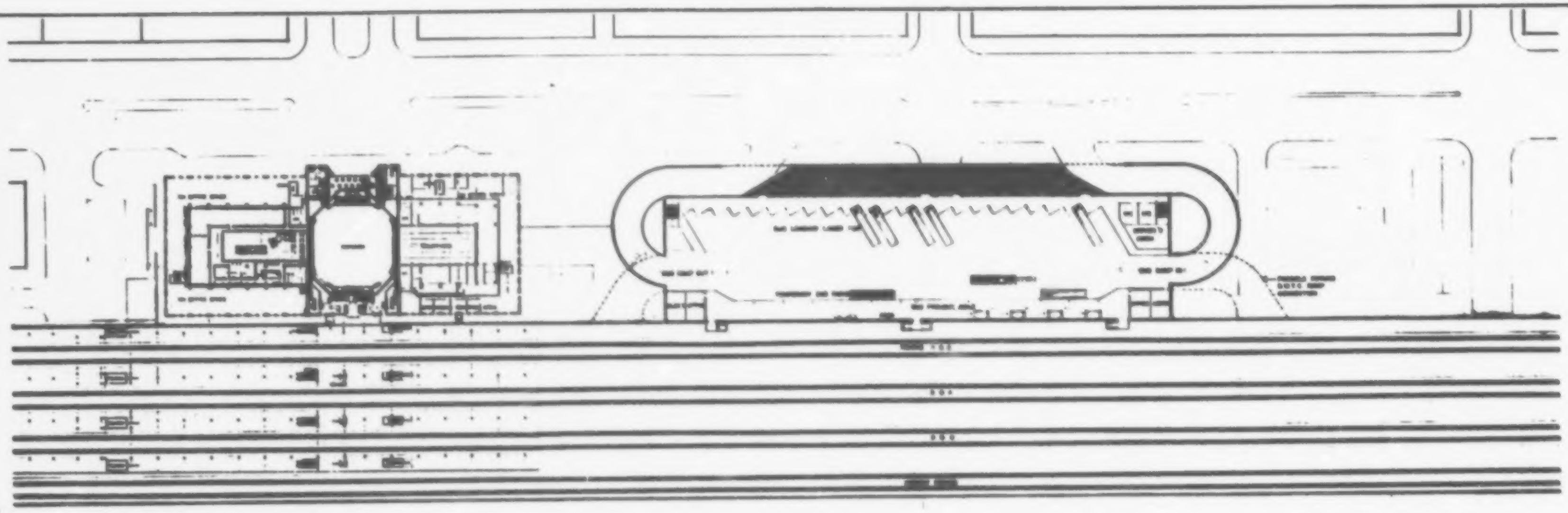
4.2.3.2 MAIN FLOOR PLAN

The only differences on the main floor between this Alternate Development Plan and the previously described Development Plan occur under the bus loading deck. Union Station and the undertrack area would remain unchanged from the Development Plan. North of York Avenue, under the bus loading deck, a large freight facility of substantially the same area as in the Development Plan is still provided.

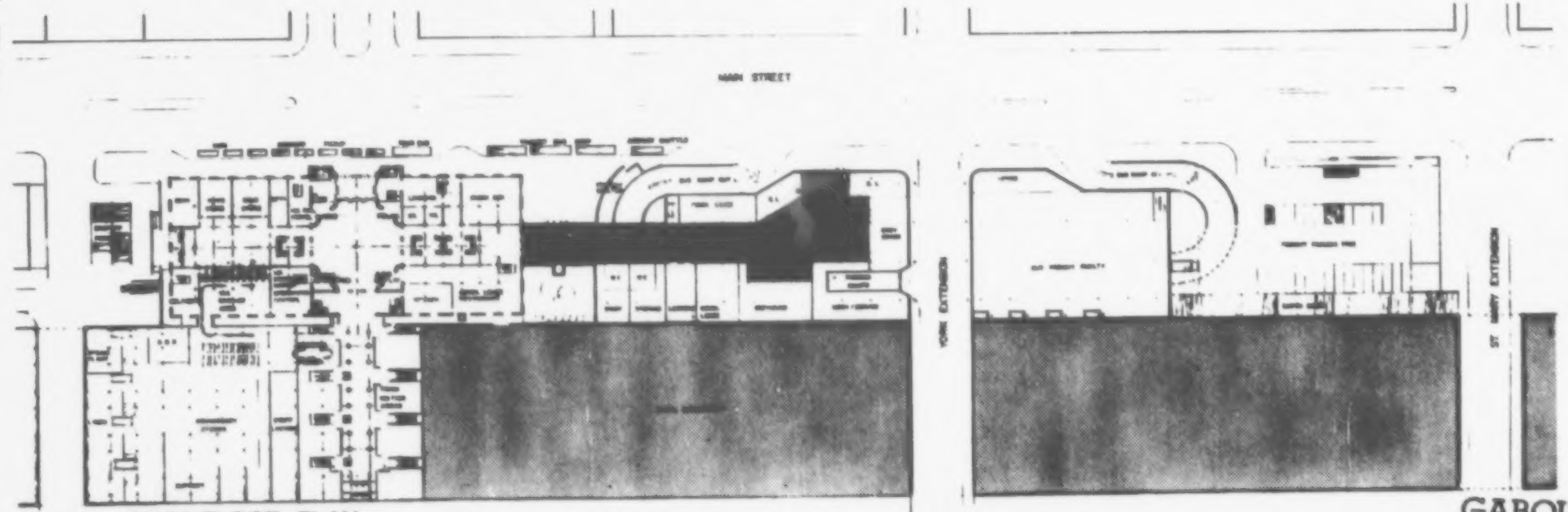
However the parking arrangement is altered considerably due to the presence of the Main Street ramp. More land (approximately 65 frontage feet) would have to be used on Main Street to account for this altered parking layout. Public access from the freight parking area to the bus carriers freight counters is less efficient in this case than in the previous Development Plan. Also, the retail facility which was shown west of the freight facility on the Main Street property line, in the Development Plan, is no longer viable due to the restricted pedestrian access caused by the bus ramp curb cut. It would therefore be necessary to change this facility to an inward oriented facility such as freight offices, bus carrier offices, storage, or other such function.

South of York Avenue, the basic layout of the bus facility remains unchanged from the Development Plan, with the following major exception. The main entry to the bus ticketing area in the Alternative Development Plan is located at the link that joins the bus facility with Union Station. The reason for this is that the bus ramp to Main Street disrupts pedestrian access to the main bus entrance shown in the Development Plan. This is one of the major disadvantages of the Alternate Development Plan.

The vehicular approaches to the Multi-Modal centre are also changed due to the Main Street ramps. In the Alternate Plan, a continuous single width curb cut is shown along Main Street from the south end of Union Station, north to the first Main Street ramp access curb cut. There are five less vehicle drop-off spaces in this Alternative scheme than in the Development Plan, however the number of transit bus and airport shuttle bus stops remain unchanged.



SECOND FLOOR PLAN



MAIN FLOOR PLAN

MULTI-MODAL FACILITY ALTERNATE DEVELOPMENT PLAN

GABOURY
ASSOCIATES
ARCHITECTS inc

PHASE IV
COST BENEFIT ANALYSIS

5.0 COST BENEFIT ANALYSIS

5.1 INTRODUCTION

The purpose of Phase IV is to develop a cost benefit analysis based on the conceptual plan for a multi-Modal facility at Union Station, which was prepared during Phase III of this study.

Cost related to the Multi-Modal facility were broken down into capital costs and building operations costs. Capital costs are defined as those attributable to new construction, renovations, land acquisition. Building operations costs are defined as those costs necessary to operate the building on an on- going basis. These costs do not include any costs to the carrier that are directly attributable to the maintenance of their business (i.e. salary costs, fuel costs, equipment costs, etc.). The distinction is drawn between building operations costs which are included in this report and carrier operations costs which are not included.

Gaboury Associates was primarily responsible for analyzing capital cost information, while DeLCan was primarily responsible for analyzing building operations costs.

Using this data, DeLCan then carried out a preliminary cost benefit analysis based on the standard "developer approach" to invested capital, and expectation of return. The format for this analysis is a simple presentation of data, rather than an exploration of various development scenarios. It was felt that the scenarios are too numerous and complex to be undertaken by the Consultants at this time. The most efficient use of funds for this study is in the development of analytical cost data that can be used for negotiations at a later stage. Presumptions of the identification of participants in a Multi-Modal development scheme, as well as the extent of the investment of each of these participants would be highly unrealistic and counter productive at this time. However, the formulation of a common data base as presented in this report will be extremely beneficial as a starting point for negotiations between each of the possible participants.

In addition to the economic cost/benefit analysis, we are also including a section on "soft" benefits that are an important part of a multi-Modal facility.

5.2 SUMMARY OF PHASE IV WORK

5.2.1 COSTS - INTRODUCTION

In order to properly assess the feasibility of the Multi-Modal proposal presented in Phase III, it was necessary to examine feasibility at a number of different levels (functional feasibility, land availability, carrier benefits, etc.). One of the most important areas of feasibility is economic feasibility. It is beyond the scope of this study to be able to provide a complete economic analysis of all aspects of the on-going operations of a Multi-modal facility. To do so would require a complete analysis of the finances and operations of each of the carriers. This information was not available to us due to its confidential nature. It will be necessary for the carriers themselves to conduct their own internal economic feasibility study on the benefits on participating in a multi-modal facility.

It is the purpose of this report to provide the carriers and the government with the hard data on the capital and on-going costs related directly to this facility, so that each party can carry out their own internal studies using this data.

It should be understood that the capital costs presented here are "order of magnitude" costs based upon the 1" = 40' plans drawn up as part of Phase III of this report. The costs should have an accuracy of ± 15%, provided that the final facility is built as per the plans presented. It should also be realized that during design development stages of a complex project such as this, many changes and refinements are inevitable, resulting in changes and refinements to the final cost. However these costs should be completely adequate for feasibility stage decisions and negotiations. All costs are based on March 1986 dollars.

In addition to the Multi-Modal facility project as defined in the terms of reference, there are also related projects that have been discussed during the previous phases of this study. The primary related projects are the Southwest Transit Corridor and the Extension of St. Mary Avenue and York Avenue underneath the tracks. The Multi-Modal facility is directly related to these other projects, but is not contingent upon their completion prior to construction of the facility. Therefore, the costs for these projects has been listed separately and do not form part of the cost benefit analysis for the Multi-Modal facility.

5.2.1.1 CONSTRUCTION COSTS

Construction costs have been analyzed in three different areas.

.1 New building construction
.2 Renovations
.3 Sitework directly related to the multi-modal facility

The renovations are confined to the entire main floor of the Union Station, and the undertrack passenger concourse including rail passenger waiting areas. It should be noted that the upper floors of Union Station are not included in this cost analysis as they are not directly related to the Multi-modal facility. Also this analysis does not include costs related to the service areas underneath the railway tracks as these are also not directly related to the Multi-modal Facility.

The new building construction costs are all those costs related to building construction north of Union Station and west of the Mainline tracks, including underground parking, main floor developments both south and north of York Avenue, and the second level bus loading platform.

It includes all costs for a complete building including costs related to architectural, structural, mechanical and electrical disciplines. Any special equipment which is included is noted in the breakdown of the costs in the following tables of construction cost estimates.

Sitework related to the multi-modal facility includes all parking lots, curb cuts, landscaping and paving, with an allowance for exterior lighting and street furnishing.

A summary of construction costs is as follows:

New Building Construction	$16,584,990.00
Renovations:	$ 2,527,040.00
Sitework:	$ 420,760.00
TOTAL CONSTRUCTION COSTS (March 1986 dollars)	$19,532,790.00
ADD 10% construction contingency	1,953,279.00
SUB-TOTAL:	$21,486,069.00

5.2.1.1 (continued)

SUB-TOTAL:	$21,486,069.00
ADD 10% - consultants fees/project development costs	2,148,606.00
TOTAL CONSTRUCTION PROJECT COST (March 1986 dollars)	$23,634,675.00
TOTAL ROUND-OFF FIGURE:	$23,635,000.00

A breakdown of these costs is provided in the following tables.

MULTI-MODAL FACILITY FEASIBILITY STUDY

TABLE 1 - CONSTRUCTION COST ESTIMATES

ITEM	QUANTITY s.f.	UNIT RATE $/s.f.	COST $	COMMENTS
A. NEW BUILDING				
1. Below Grade Parking	60,000.	29.31*	1,758,600.	*Based on Y.F.C. gross building cost for this category ($28.05/s.f.) - January 1985 dollars - inflated by .3% per month to $29.31/s.f. march 1986 dollars.
2. New Bus Facilities				Includes all architectural structural, mechanical and electrical components of a complete bus station facility.
Main Floor (south of York)	47,607			
Main Floor (north of York)	29,635			
2nd Floor (not incl. ramps)	78,295			
Total Area:	155,537	82.76	12,872,240.	($79.20 Jan/85$)Y.F.C. ($82.76 mar/86$)
3. Special Shoring Costs Continuous pile shoring with concrete wall (23'h) and diagonal tie-back members for lateral earth pressure.	530 lin/ft.	690 lin/ft.	365,700.	Based on preliminary analysis by structural engineer. This method minimizes disruption of track usage & minimizes track/building vibration transfer.
4. Two Ramps (from 2nd level to track level S.W.T.C.)	7,923	150	1,188,450.	Includes walls and roof.
5. Special Vertical Circulation Four freight elevators	4 elev.	50,000/ea	200,000.	Other vertical circulation elements included in the building construction cost (Item 2)
6. Signage Allowance			50,000.	Allowance
7. Bus Entry Doors	2	75,000.	150,000.	
TOTAL NEW BUILDING CONSTRUCTION COST (A):			16,584,990.	

* Y.F.C. refers to "Yardsticks for Costing", the Canadian Industry Standard for updated, regionally adjusted construction cost information.

MULTI-MODAL FACILITY FEASIBILITY STUDY

TABLE 1 - C.C.E.

ITEM	QUANTITY s.f.	UNIT RATE $/s.f.	COST $	COMMENTS
B. RENOVATIONS B1. UNION STATION - MAIN FLOOR				Renovation costs from 1981 Union Station Development Plan Report.
1. North Wing (passenger amenity area)	12,530	18.35	230,000.	North concourse renovations currently being implemented so are not included in area or cost calculations.
2. Rotunda Area	6,360		N/A	Project substantially completed.
3. Renovations to South Wing to accomodate VIA facilities ticketing including conveyors, counters, etc., and baggage, operations control facility, station masters office, waiting and display areas and commercial lease facilities.	20,220	22.75	460,000.	
4. Upgrading Ground Floor for fire code, sprinklers, fire alarm, smoke detectors, fire ratings, emergency lighting.			113,000.	Allowance only. Extent of code upgrading is an estimate only at present. Discussions of specific plans with the fire marshall & building code authorities will be required during the design stage to determine exact upgrading requirements.
5. New South Entrance and Automatic Doors			60,000.	
6. New Ventilation System for all Ground Floor Areas			200,000.	
TOTAL RENOVATION COSTS (B1) UNION STATION MAIN FLOOR			1,063,000.	

MULTI-MODAL FACILITY FEASIBILITY STUDY

TABLE 1 - C.C.E.

ITEM	QUANTITY s.f.	UNIT RATE $/s.f.	COST $	COMMENTS
B. RENOVATIONS B2. UNDERTRACK CONCOURSE*				*Two other projects in the undertrack area may be undertaken before, during or after construction of multi-modal facility.
1. General Architectural, Mechanical and Electrical Upgrading			132,500.	.1 General renovations to the undertrack train service areas ($480,000 estimate)
2. Four Additional Passenger Waiting Areas (excavated from north side of concourse)			560,000.	.2 New steam plant in undertrack area (to replace the existing steam plant which will be displaced by East Yards Developments ($150,000. estimate)
3. Conveyor Baggage Pickup System			20,000.	These projects are not a result of/or dependant upon a multi-modal facility and are therefore not included in the total costs attributable to a Multi-modal facility.
TOTAL CONCOURSE RENOVATIONS (B2)			712,500.	
TOTAL OF B1 and B2:			1,775,500.	Inflation figures from Statistics Canada for the combined labour and materials. Figures only available to mid 1985 straightline projections of 1985 average to March 1986 result in the 32.9% increase from Dec '80 to Mar '86
-Add inflation from Dec '80 to March '86 = 32.9%			+ 584,140. 2,359,640.	
-Add escalators for Tracks 1/2 and 3/4 (1986$)			+ 240,000. 2,599,640.	
-Substract the value of work already carried out on the concourse and north concourse (passenger amenity area [37,400 E. Concourse, 35,200 N. Concourse])			- 72,600.	
TOTAL RENOVATION COSTS (B)			2,527,040.	

MULTI-MODAL FACILITY FEASIBILITY STUDY

TABLE 1 - C.C.E.

ITEM	QUANTITY s.f.	UNIT RATE $/s.f.	COST $	COMMENTS
C. SITEWORK (Related to Multi-Modal Facility)				
1. Bus Freight Parking Lot (asphalt & base & concrete approach & curbs)	26,650.	3.20	85,280.	
2. Parking Area South of Union Station (regrade & resurface)	17,250.	3.40	58,650.	
3. Main Street Drop-off Loop (road surface & base preparation)	5,110.	6.00	30,660.	
4. Union Station Curb-cut for Pick-up/Drop-off			N/A	Remains as is.
5. Landscaped Court	4,200.	Allow.	20,000.	
6. New Ramp and Steps at South End of Union Station	600.	10.00	6,000.	
7. Repair and Resurface Concrete Platform at South End of Union Station.	1,200.	3.50	4,200.	
8. Repaving of Pedestrian Areas Includes: - removal of existing sidewalk - preparation of base - supply and installation of interlocking pavers c/w 150mm limestone subbase and bedding same. - installation of concrete curbs at intermittent locations as necessary (e.g. wheelchair curb cuts). - supply and install precast concrete curb along property line as paver edge.		4.37		Based on recently tendered Winnipeg projects (July 1985). The unit cost for repaving is $4.27/s.f. using an inflation rate of (estimate) .3% per month, the unit price in Mar '86 will be (.3 x 8) 2.4% = $4.27 + 2.4% = $4.37.
8a. Surface Paving within the Property Line.	18,600.	4.37	81,280.	

MULTI-MODAL FACILITY FEASIBILITY STUDY

TABLE 1 - C.E.E.

ITEM	QUANTITY s.f.	UNIT RATE $/s.f.	COST $	COMMENTS
8b. Surface Paving of the Sidewalk and Transit Island (outside of the Property Line).	19,380.	4.37	84,690.	This item may not be attributable to this project due to the fact that it is not within the property line. However pending negotiations the item is left in the total cost estimate.
9. Exterior Lighting	20 est.	2,000.	40,000.	
10. Street Furnishings		Allow.	10,000.	
TOTAL SITE WORK:			420,760.	

SUMMARY OF TABLE 1: MULTI-MODAL FACILITY COSTS

A. NEW BUILDING	$16,584,990.
B. RENOVATIONS	2,527,040.
C. SITEWORK	420,760.
Sub-Total A, B & C	$19,532,790.
Add 10% contingency:	1,953,279.
SUB-TOTAL:	$21,486,069.
Add 10% Consultants Fees and Project Development Costs	2,148,606.
TOTAL CONSTRUCTION PROJECT COST: (including contingency and consultants fees and project development costs March 1986 dollars)	$23,634,675.
ROUND OFF FIGURE	**$23,635,000.**

5.2.1.2 ALTERNATE DEVELOPMENT PLAN CONSTRUCTION COSTS.

The preceeding constructin costs in Table 1 relate to the Development Plan. If the Alternate Development Plan (bus access from Main Street ramps) is followed, the costs shown in Table 1 would change as follows:

- Deduct the cost of ramps to the South West Transit Corridor	$(1,188,450.00)	-
- Add the cost of ramps to Main Street: 11,400 s.f. x $150/s.f.	1,710,000.00	+
- Deduct 2000 s.f. of building area in the bus facility (space needed for the Main Street ramps) 2000 s.f. x $82.76/s.f.	(165,520.00)	-
TOTAL ADDITION TO CONSTRUCTION COSTS FOR THE ALTERNATE DEVELOPMENT PLAN (March 1986 dollars)	$ 356,030.00	
ADD: 10% Contingency	35,603.00	+
SUB-TOTAL:	$ 391,633.00	
ADD: 10% Consultants Fees/ Project Development	39,165.00	+
TOTAL ADDITION TO CONSTRUCTION PROJECT COST FOR THE ALTERNATE DEVELOPMENT PLAN (March 1986 dollars)	$ 430,798.00	
ROUND-OFF FIGURE:	$ 431,000.00	

5.2.1.3 COSTS FOR STAGED DEVELOPMENT

The construction costs itemized in Table 1 totalling $23,635,000.00 are for a complete Multi-Modal Facility planned to the specified requirements of the carriers. The optimum development scenario would be to construct the entire facility at one time. This would minimize disruption and maximize the benefits of the facility to the travelling public and the carriers.

If such a scenario is not possible due to limited available funds, it is technically feasible to stage the development in smaller project packages.

A summary of staged costs (March 1986 dollars) is as follows:

STAGE 1:	
Bus Facility without bus deck roof	$17,525,000.00
STAGE 2:	
Union Station Renovations	$ 3,219,000.00
STAGE 3:	
Bus Facility Completion	$ 2,890,000.00

For reasons of clarity, these costs are a breakdown of costs supplied in Table 1. There would however be a marginal increase in costs implicit in the process of phasing that would not be incurred if the entire project was constructed at the same time.

A breakdown of these staged costs is as follows:

STAGE 1 - BUS FACILITY WITHOUT BUS DECK ROOF

This stage consists of the minimum construction necessary to build a functional bus facility linked to Union Station. It would consist of the following built elements.

The new building (as described in Table 1, Item A "New Building", but including a bus deck roof only over the passenger waiting areas and freight aisle. This would leave the bus maneouvring area and ramps open to the elements. this would save the cost of the roof and ramp walls as well as ventilation equipment for this area. Snow clearing equipment would be needed for the winter.

This stage would not include the Union Station renovations or undertrack concourse area. It would only consist of that portion of sitework attributable to the bus facility. The costs for Stage 1 would be:

NEW BUILDING:

New Building Cost from Table 1	$16,584,990.00
Deduct Bus Entry Door Cost	(150,000.00)-
Deduct 33,500 s.f. Roof Cost 33,500.00 x 55 (Roof cost includes ventilation equipment deduction)	(1,842,500.00)-
Deduct Ramp roof and partial walls 7,923 x 50	(396,150.00)-
TOTAL COST FOR NEW BUILDING WITHOUT BUS DECK ROOF:	$14,196,340.00

SITE WORK (associated with new building)

Items 1, 3, 5 from Table 1	$ 135,940.00
Partial repaving of pedestrian areas (Item 8a & 8b, Table 1)	
8a - Surface Paving within property lines: 13,000 s.f. x $4.37/s.f.	56,810.00
8b - Sidewalk Paving and Transit Island (oustide property line) 13,200 x $4.37	57,680.00
Exterior Lighting (Item 9, Table 1) 15 standards x $2,000.00 each	30,000.00
Street Furnishings (Item 10, Table 1) Allowance	7,000.00
TOTAL SITE WORK ASSOCIATED WITH NEW BUILDING	$ 287,430.00
TOTAL CONSTRUCTION COST FOR NEW BUILDING AND ASSOCIATED SITE WORK:	$14,483,770.00
ADD: 10% Contingency	1,448,377.00
SUB-TOTAL:	$15,932,147.00
ADD: 10% Consultants Fees and Project Development Costs	1,593,214.00
TOTAL PROJECT COST FOR STAGE 1 NEW BUS FACILITY (MARCH 1986 DOLLARS)	**$17,525,361.00**
ROUND OFF FIGURE:	**$17,525,000.00**

STAGE 2 - UNION STATION RENOVATIONS

TOTAL RENOVATION COSTS FOR GROUND FLOOR OF UNION STATION & UNDERTRACK CONCOURSE (from Table 1)	$ 2,527,040.00
SITE WORK (Associated with Union Station)	
Items 2, 6 and 7 from Table 1	$ 68,850.00
Partial Repaving of Pedestrian Areas (part of Items 8a & 8b, Table 1)	
- 8a: Surface paving within property line 5,600 s.f. x $4.37/s.f.	24,470.00
- 8b: Sidewalk Paving outside property line 6,180 s.f. x $4.37/s.f.	27,010.00
Exterior Lighting (Item 9, Table 1) 5 standards x $2,000.00 each	10,000.00
Street Furnishings (Item 10, Table 1) Allowance	3,000.00
TOTAL SITE WORK ASSOCIATED WITH UNION STATION	$ 133,330.00
TOTAL RENOVATION COSTS AND ASSOCIATED SITE WORK:	$ 2,660,370.00
ADD: 10% Contingency	266,037.00
SUB-TOTAL:	$ 2,926,407.00
ADD: 10% Consultants Fees, Project Development Costs	292,640.00
TOTAL PROJECT COST FOR STAGE 2 UNION STATION RENOVATIONS (March 1986 Dollars)	**$ 3,219,047.00**
ROUND OFF FIGURE	**$ 3,219,000.00**

STAGE 3 - COMPLETION OF BUS FACILITY

This stage would bring the bus facility up to the standards requested by the carriers, that is a weather protected bus loading area. It would mean adding the roof, walls and bus entry doors to enclose the second level bus loading deck. It would also mean completing the ventilation system and lighting for this area.

Bus Deck Roof Costs (including ventilation and lighting) 33,500 s.f. x $55.00/s.f.	$ 1,842,500.00
Ramp Roof and Partial Walls 7,923 s.f. x $50.00/s.f.	396,150.00
Bus Entry Doors	150,000.00
TOTAL CONSTRUCTION COST FOR COMPLETION STAGE:	$ 2,388,650.00
ADD: 10% Contingency	238,865.00
SUB-TOTAL:	$ 2,627,515.00
ADD: 10% Consultants Fees and Project Development Costs	262,751.00
TOTAL PROJECT COSTS FOR STAGE 3 COMPLETION OF BUS FACILITY (March 1986 Dollars)	**$ 2,890,266.00**
ROUND OFF FIGURE	**$ 2,890,000.00**

5.2.1.4 ECONOMIC IMPLICATIONS OF AIRPORT LINK

As mentioned in previous sections of the report capital costs for inclusion of a non-staffed airport link (F.I.D.S. and direct line telephones) would be minimal in relation to the overall construction cost budget. The area required for the link facility and related circulation space would be approximately 200 s.f. The square foot construction cost of $82.76 (noted in Table 1 for new construction of bus facilities) would be adequate to cover the construction of the space needed as well as the kiosk construction and related electrical infrastructure. (The built in link facility would be a large cylindrical kiosk with F.I.D.S. television type monitors around the top and direct line telephones below).

Equipment costs for four F.I.D.S. monitors and airport tie-in are more difficult to assess at this preliminary stage, but discussions with Air Canada Computer Systems Services have suggested that a cost of $1,100.00 per monitor is a reasonable equipment cost. Assuming the same amount for installation of the monitor the cost for four monitors installed would be:
4 x $2,200.00 = $8,800.00

The capital costs would therefore be as follows:

- Serviced space including kiosk	$ 16,500.00
- F.I.D.S. equipment and installation Allowance	8,800.00
Total Capital Cost for Airport Link	$ 25,300.00

Revenues from this facility would have to be discussed by all of the parties involved. A reasonable starting point would be to assess a lease rate for the space that would be comparable to lease rates for the C.R.U.'s in the building. i.e. $16.00/s.f./year.

The annual revenue would therefore be 200 s.f. x $16.00/s.f./year = $3,200/year. Discussions with Air Canada Computer Systems Services have suggested that Air Canada is interested in marketting F.I.D.S. to users and therefore may consider charging a fee for the F.I.D.S. signal, rather than paying lease costs. F.I.D.S. would therefore represent an operating cost rather than a revenue. This would have to be negotiated at the project implementation stage. Due to this uncertainty however, we have not considered the F.I.D.S. as a revenue or an operating cost for the purposes of this study.

STAGE 3 - COMPLETION OF BUS FACILITY

This stage would bring the bus facility up to the standards requested by the carriers, that is a weather protected bus loading area. It would mean adding the roof, walls and bus entry doors to enclose the second level bus loading deck. It would also mean completing the ventilation system and lighting for this area.

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Ramp Roof and Partial Walls 7,923 s.f. x $50.00/s.f.	396,150.00
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ADD: 10% Contingency	238,865.00
SUB-TOTAL:	$ 2,627,515.00
ADD: 10% Consultants Fees and Project Development Costs	262,751.00
TOTAL PROJECT COSTS FOR STAGE 3 COMPLETION OF BUS FACILITY (March 1986 Dollars)	**$ 2,890,266.00**
ROUND OFF FIGURE	**$ 2,890,000.00**

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As mentioned in previous sections of the report capital costs for inclusion of a non-staffed airport link (F.I.D.S. and direct line telephones) would be minimal in relation to the overall construction cost budget. The area required for the link facility and related circulation space would be approximately 200 s.f. The square foot construction cost of $82.76 (noted in Table 1 for new construction of bus facilities) would be adequate to cover the construction of the space needed as well as the kiosk construction and related electrical infrastructure. (The built in link facility would be a large cylindrical kiosk with F.I.D.S. television type monitors around the top and direct line telephones below).

Equipment costs for four F.I.D.S. monitors and airport tie-in are more difficult to assess at this preliminary stage, but discussions with Air Canada Computer Systems Services have suggested that a cost of $1,100.00 per monitor is a reasonable equipment cost. Assuming the same amount for installation of the monitor the cost for four monitors installed would be:
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5.2.1.5 LAND COSTS

An essential part of the feasibility of the development plan as shown in Phase III, is the availability and cost of the land needed to construct the building and parking lots.

In this case the availability of the necessary lands does not appear to be a major obstacle to proceeding with the development. Gaboury Associates has been in touch with all of the registered owners of the lands under discussion and we have concluded that all parties would be willing to make their lands available under sale or lease agreements. Those lands which are presently used for other purposes are under relatively short term lease agreements and therefore could be made available for construction of the Multi-Modal facility when that project is ready to proceed.

There are at present four separate parties that either hold ownership of the lands under discussion at present or who are to expected to hold ownership of the lands in the near future. These four parties are:

.1 Devon Estates Limited - Calgary
(a subsidiary of Imperial Oil)
.2 Canadian National Railways
.3 VIA Rail Canada Inc.
.4 City of Winnipeg

VIA Rail does not at present hold ownership of any of the lands under discussion. However, both VIA and CN have stated that they are presently undertaking negotiations to transfer the Union Station building and approximately 230' of land North of Union Station from CN ownership to VIA ownership. For the purposes of this report therefore, this land will be referred to as CN/VIA holdings.

The two plan diagrams attached show the extent of ownership for each of the parties mentioned. The first diagram shows the legal lot descriptions and locations, with the owner of each lot identified. The second plan shows the configuration of the four ownership parcels.

.1 Parcel A - Devon Holdings:
This parcel consists of 200' Main Street frontage by 120' depth. It is the most northerly of the parcels under consideration. The development plan as shown in Phase III only utilizes the southern most 116' of this parcel. The most northerly 84' of this parcel is not used by the building or parking lot as shown on the development plan.

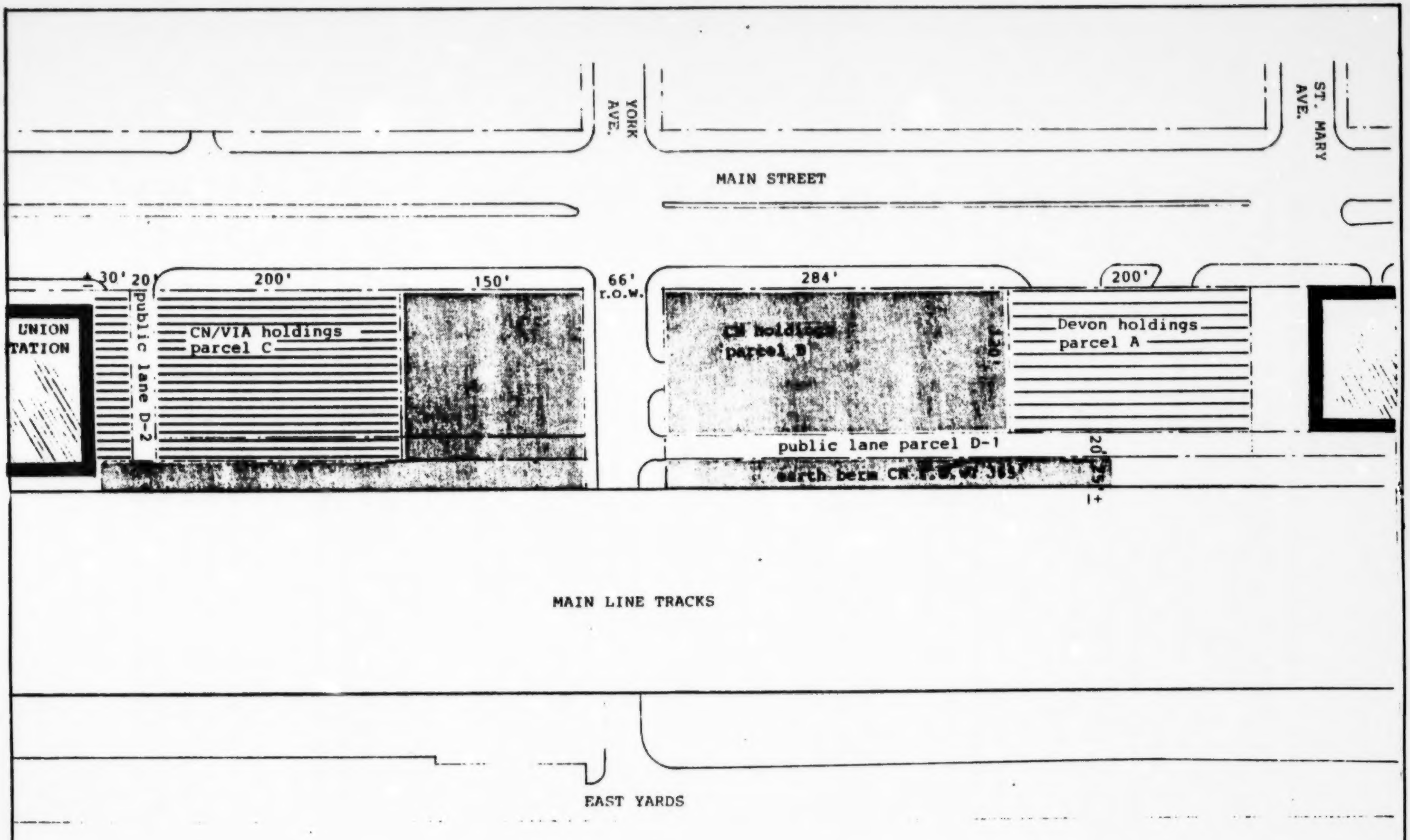
However, it was decided at the last Advisory Committee Review Meeting, that the entire parcel should be considered for purposes of future expansion or plan development changes during later stages of design and development of this project. It is also reasonable to assume that Devon Estates would not be willing to subdivide this parcel as the piece left over (84' frontage) would not be of marketable size. We are therefore considering the entire Devon Estates parcel for the purposes of this report. It should also be noted that if and when St. Mary Avenue is extended underneath the tracks some of this parcel may be required for the road right-of- way. The amount of land needed for this right-of-way is uncertain at present as the curve that St. Mary Avenue will take as it traverses underneath the tracks has not been set. Two different curves have been shown at various times in the planning history of this avenue extension.

.2 Parcel B - CN Holdings:

This parcel is composed of a number of blocks of land that together form the CN holdings. The largest parcel has a 284' Main Street frontage North of York Avenue and a 120' depth. South of York Avenue, CN owns the block of land upon which the Empire Hotel stood. This block has 150' Main Street frontage by 140' depth (the added depth is due to the added area of a public lane which was closed by By-Law 13595. The last block of land that forms part of the CN holdings is a linear strip of land adjacent to the Mainline Tracks, which is at present used for the earth berm to support the tracks. The exact width of this land would need to be surveyed at later stages of the project development, however for purposes of this study the land was roughly measured to be 25' in width. The length of this strip which would be needed for the development stretches from Union Station in the south to a point 365' north of the north limit of the York Avenue right-of-way. This is shown diagrammatically on the accompanying plan.

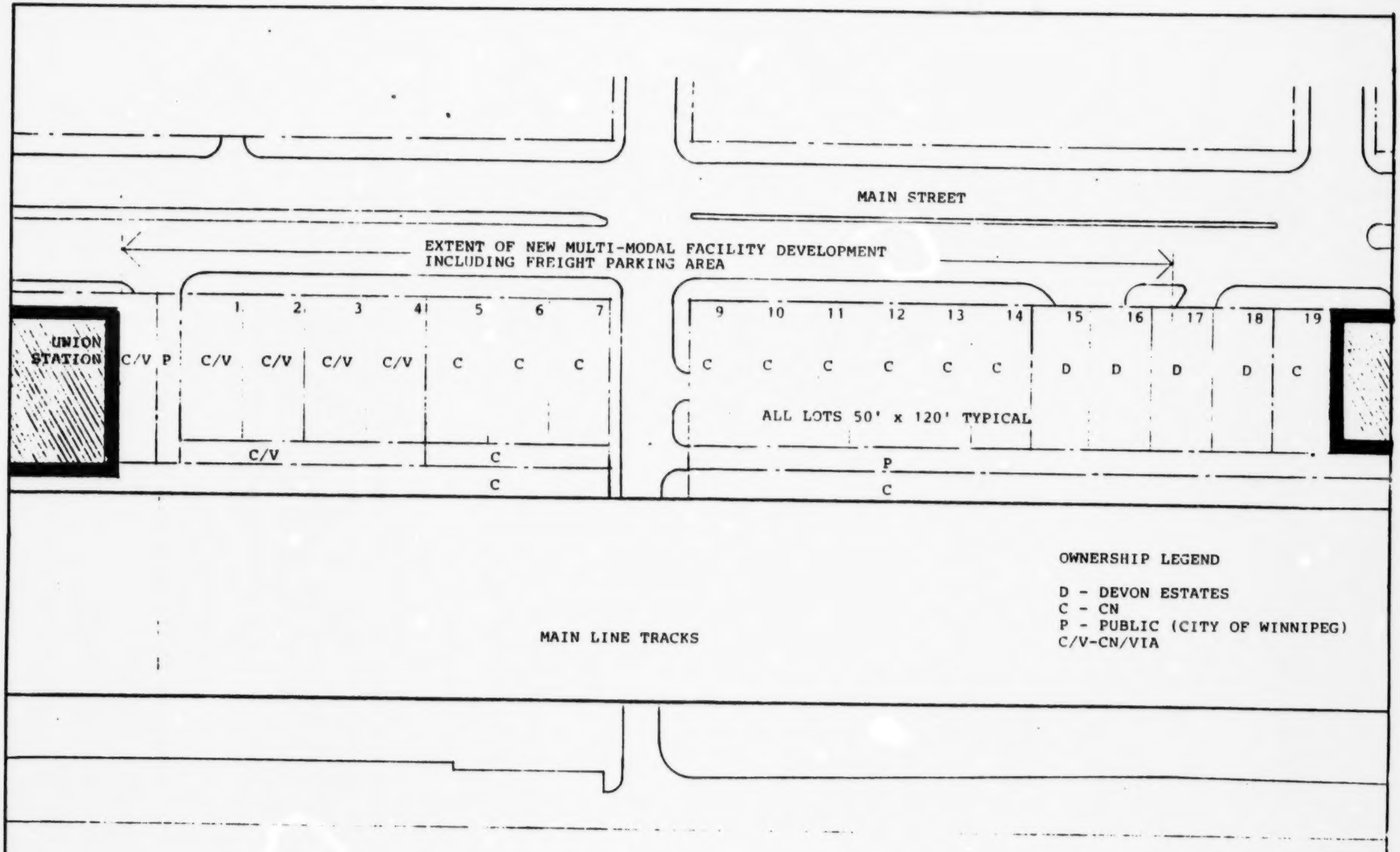
.3 Parcel C - CN/VIA Holdings:

This is the parcel which is at present under negotiations between CN and VIA. It stretches from the north wall of Union Station north to the northern limit of lot 4. It is divided into two halves by an existing public lane right-of-way shown as part of Parcel D on the accompanying plan.



EXISTING MAIN STREET LAND OWNERSHIP

GABOURY
ASSOCIATES
ARCHITECTS



EXISTING MAIN STREET LAND OWNERSHIP

GABOURY
ASSOCIATES
ARCHITECTS

.4 Parcel D:

Parcel D consists of those lands currently owned by the City of Winnipeg. For the purposes of this report, it is divided into two blocks of land; Block D1 which is the public lane running north from York Avenue adjacent to the earth berm of the Mainline Tracks. This block is 20' in width and 484' in length. The other block of publicly owned land is shown as Block D2, and is the public lane right-of-way adjacent to the north wall of Union Station. It is 20' in width and 140' in length. The total area of publicly owned land is 12,480 s.f.

Another parcel of City owned land to be considered in this development is the 66' right-of-way for the York Avenue extension. While this is not land which will be purchased and built upon, the air rights over this land will have to be the subject of negotiations between those parties who develop the Multi-modal facility and the City of Winnipeg.

The cost of acquiring these parcels of land has been explored during the course of Phase IV work. It is much more difficult to pin-point with accuracy land costs on this site as opposed to construction costs. The primary reason for this is that for many years the land along this area of Main Street has remained virtually undeveloped and therefore there are no comparable similar land sales and developments with which to compare. The land is not similar to other lands in the downtown area primarily due to the presence of the Mainline railway tracks and the East Yards on the other side of the tracks. The tracks would be a negative factor in terms of sale price and the East Yards Developments could be a positive factor in terms of sale price. However, the fact that the East Yards developments are a major unknown at present means that the full impact of this development on land prices along Main Street cannot yet be properly assessed. It has been said that over the long-term East Yards Developments will increase the value of the Main Street lands. If based on the present surrounding urban conditions and developments , however, the land would have a much lower value than similar size properties closer to the downtown core. Settling on a final land price will necessitate discussion and negotiations regarding the future of the surrounding area and its impact on this Main Street property. The differences on square foot costs for the various parcels of land as stated in this report point to the uncertainty regarding the issues mentioned.

The land costs as discussed in this report therefore should be taken as a starting point for negotiations rather than an assessment of accurate market value. Listed below are cost figures for each of the parcels that can be used as a starting point for negotiations, and that are used in our cost benefit analysis in a later section of the report. An increase or decrease of these prices during the negotiation stage will of course have an effect on the cost benefit calculations which can be readily revised with the input of new negotiated land costs.

Parcel A - Devon Holdings:
24,000 s.f. @ 18.75/s.f. = $450,000.00

This is the asking price given to us by Devon Estates. They have stated that they are currently negotiating with a prospective buyer for this property. They are not interested in a short or long term lease situation. The existing tenant occupying the land is on a short term lease. There are no structures on the property.

Parcel B - CN Holdings:
75,855 s.f. @ 32.96/s.f. = $2,500,000.00

CN has stated that this is the book value of the land shown as Parcel B in the accompanying land ownership plan diagram. They have also stated that they are willing to enter into discussions regarding sale or lease of the land for the proposed development. There are three one and two-storey structures on the land that have apparent negligible value.

CN has also stated that in their opinion the land has a greater potential in the long term than for use as a Multi-Modal Facility although it would be an appropriate type of usage, related to land value, for the next 25 years. They have suggested that one way of upgrading the usage in the long term may be to add office facilities over the bus facilities if the bus facilities are still needed in this location at that time.

Parcel C - CN/VIA Holdings:
32,300 s.f.
Since VIA Rail is not yet the registered owner of the land represented by Parcel C, they could not provide us with any estimate of land value. In the absence of any other similarily situated properties, we therefore took an average of the s.f. costs as arrived at for Parcels A & B to arrive at an average s.f. cost of $25.86.

Parcel C - CN/VIA Holdings
32,200 s.f. @ 25.86 = $832,692.00, round off is $833,000.00.

Parcel D - City of Winnipeg
12,480 s.f.

The market value of this land will also be the subject of negotiations. The linear configuration of the public lanes, i.e. 20' width x 484' length would indicate that this land would have much less value than land of a comparable square footage and a more regular configuration. The City of Winnipeg has stated in some cases a nominal fee, i.e. in the area of $100.00, has sometime been charged for lane closings. However, officials of the City Assessments Branch and the Land Surveys and Real Estate Branch have also stated that some recent lane sales in the downtown area have been negotiated for market value land prices on the grounds that once the land parcels have been assembled all parts of the land will have the same value related to its new use.

Without the benefit of being able to enter negotiations we have therefore set the value of this land, for the purposes of this report at the same value as Parcel C, i.e. an average s.f. costs of Parcels A & B = 25.86/s.f.

Parcel D - City of Winnipeg
12,480 s.f. @ 25.86/s.f. = $322,732.00
Round-off Figure: $323,000.00

The total theoretical land value arrived at using this methodology is $4,106,000.00. Again, it should be stated that this is a starting point figure rather than an accurate assessment of market value.

5.2.1.6 COSTS OF RELATED PROJECTS

In the course of the study, several projects which are within the study area or which affect the study have been identified. The timing and exact scope of these projects, for the most part, is not known. To the degree possible, however, they have been recognized and accomodated in the Development Plan and Alternate Development Plan. Several of these related projects have been described briefly below with order of magnitude construction cost estimates.

.1 South West Transit Corridor (S.W.T.C.):
Functional planning for this project has been completed. At the present time, however, a schedule for implementation is not available. The Development Plan requires the construction of a portion of the S.W.T.C. from north of the train shed to Main Street just south of Graham Avenue. In order for this construction to take place, a commitment would likely have to be made to eventually build the entire line and VIA Rail would have to agree to ultimately relinquish the use of Tracks 1 and 2 for the S.W.T.C. These tracks will be able to stay in service until the full S.W.T.C. system is constructed through the realignment of their connection to Track 3. The estimated construction cost of the S.W.T.C. from the north end of the train shed to Main Street, (1,500') excluding the rail relocation cost, is $820,000.00. This estimate does not include rail relocation cost and bridge costs at York Avenue or St. Mary Avenue but does include an allowance for the cost of an embankment and retaining walls in the area directly north of the St. Mary Avenue extension.

.2 York Avenue/St. Mary Avenue Extension:
The City of Winnipeg, Streets and Transportation Department, has identified their long term plan to connect York and St. Mary Avenues as a one way couplet to Provencher Boulevard near the Red River crossing. This project would include the reconstruction of the York Avenue/rail underpass and the reconstruction and extension of York Avenue as three lanes from Main Street to the Red River. Similarly, a St. Mary Avenue/rail underpass would be constructed and St. Mary Avenue extended east from Main Street to the Red River as three lanes. Implementation of the Development is not contingent on the construction of this one way couplet.

Streets and Transportation have indicated that the planned York Avenue roadway would require the addition of an activity lane and island in the vicinity of the entrance to the underground parking. This fourth lane would facilitate vehicle movements into and out of the parkade and would be dropped in the area under the tracks further east. The grade on York Avenue at the entrance to the underground parking area may drop somewhat when reconstruction takes place.

This change in grade may result in the need to modify the parkade entrance ramps slightly. The cost of reconstructing approximately 200' of York Avenue immediately east of Main Street is estimated to be $122,000.00. This cost includes an allowance for the additional activity lane but excludes any bridge reconstruction cost.

.3 Relocation of Carrier Terminal Facilities:
This item includes the relocation of the terminal facilities for Grey Goose, Greyhound and Beaver, and also the relocation of the VIA maintenance and servicing facilities that are currently carried out on Tracks #1 and #2. Inherent in any relocation or renovation is the cost of many items, including the following:

- the physical moving of furnishings and equipment
- interruption and/or delay of services
- increased advertising requirements
- operational training and breaking-in period at new facilities
- lag time for freight and passenger patrons to become familiar with new facilities.

While it is not within the scope of this study to identify these and other relocation related costs, they should be recognized and dealt with once more detailed work on the costs of a new terminal is underway.

5.2.1.7 BUILDING OPERATING COSTS AND LEASE RATES

In order to carry out a realistic cost/benefit analysis, current local market values for multi-use building costs and lease rates are required. To obtain this information, a prominant local commercial real estate firm and a property management firm familiar with the existing bus terminal operations were interviewed. Existing underground, heated parking garages in the area were also surveyed to obtain current parking rates. Table 2 contains the various estimated current local market building operating costs, lease rates and parking rates and the appropriate floor area of the Development Plan applicable to each category. These rates are multiplied by the floor area to give estimated costs or revenues.

Lease rates given are "triple net" or not inclusive of any additional costs. Operating costs include allowances for heating, lighting, water and sewer, janitorial, refuse removal, building maintenance and repair and personnel, security, insurance, property taxes and property management. The cost of many of the different components of the total operating costs can vary greatly from one type of area to another. These variations have been taken into account in deriving the rates shown in Table 2. The cost of a full time attendant has been included in the parking area costs.

TABLE 2

BUILDING OPERATING COSTS, LEASE RATES AND FLOOR AREAS

A. Building Operating Costs	Area (sq. ft.)	Rate ($/sq.ft./yr)	Cost ($/yr)
1. *Union Station*			
a) New Commercial Retail Units (CRU's)	13,773	10.00	137,730
b) Main Floor Common Areas & VIA Offices	36,637	10.00	366,370
2. *Undertrack Concourse*	28,860	10.00	288,600
3. *Bus Terminal*			
a) Administration Areas	8,556	7.00	59,892
b) CRU's - With Internal Access	5,838	10.00	58,380
c) CRU's - With External Access	4,918	8.00	39,344
d) Common Areas	27,565	10.00	275,650
e) 2nd Level Waiting Lounge	11,136	10.00	111,360
f) Freight, Storage, Mechanical Services	30,365	4.00	121,460
g) Bus Loading/Unloading Areas	67,159	4.00	268,636
h) Underground Parkade	60,000	4.50	270,000

B. Building Lease Rates	Area (sq. ft.)	Rate ($/sq.ft./yr)	Revenue ($/yr)
a) CRU's (Union Station) - With Internal Access	13,773	16.00	220,368
b) CRU's (Bus Terminal) - With Internal Access	5,838	16.00	93,408
c) CRU's (Bus Terminal) - With External Access	4,918	10.00	49,180

C. Parking Garage Rates	Rate ($)
a) 1st Half Hour or portion	0.70
b) 2nd Half Hour or portion	0.70
c) 2nd Hour or portion	1.00
d) Daily Maximum	5.00
e) Monthly Parking	75.00

Note: The Areas shown for Building Operating Costs are derived from the Total Areas shown in Table 1.

TABLE 3

MULTI-MODAL TERMINAL COST SUMMARY

ITEM	Estimated Capital Costs From Table 1	Area (sq. ft.)	Estimated Capital Costs	Est. Annual Financing Costs	Est. Annual Operating Costs	Est. Annual Commercial Revenues
1. **Union Station Area**						
a) CRU's		13,773	468,000	62,000	138,000	221,000
b) Main Floor, Common Areas, VIA Offices		36,637	1,242,000	164,000	366,000	*
c) Undertrack Concourse		28,860	1,348,000	178,000	289,000	*
sub-total	2,527,040	79,270	3,058,000	404,000	793,000	221,000
2. **Bus Terminal**						
a) CRU's		10,756	1,077,000	142,000	98,000	143,000
b) Carrier Areas		144,781	16,862,000	2,231,000	837,000	*
c) Underground Parking		60,000	2,128,000	282,000	270,000	264,000
sub-total	16,584,990	215,537	20,067,000	2,655,000	1,205,000	407,000
3. **Sitework**	420,760	-----	510,000	67,000	-----	-----
4. **Land**	-----	144,635	4,106,000	543,000	-----	-----
TOTAL	$19,532,790	-----	$27,741,000	$3,669,000	$1,998,000	*

*see Section 5.2.2.6

Note: The costs given in the third column include 10% for contingency and 10% for fees and project development costs. The costs shown in the first column do not include these allowances.

5.2.2 COST/BENEFIT ANALYSIS

Within the scope of this study it is not possible to carry out a full cost/benefit analysis in the normal fashion as it is difficult to accurately estimate the current market lease rates that the bus carriers would be expected to pay. Also, a review of the cost figures shown in Table 3 indicates that a subsidy of some kind will be necessary if the multi-modal terminal is to become a reality. The final formula that defines how the project costs should be shared can only be identified after detailed and extensive negotiations between the parties involved. Those parties would include the Federal, Provincial, and Municipal Governments, Greyhound, Grey Goose, VIA Rail and CN Rail. The purpose of this section of the report is to identify order of magnitude costs and revenues for the project which in turn will allow further meaningful and detailed discussions between the affected agencies to take place.

5.2.2.1 CAPITAL COSTS

The estimated capital costs shown in Table 3 are derived from the costs discussed in Section 5.2.1.1, Construction Costs. The capital costs shown include a 10% contingency allowance and 10% for project development costs and consulting fees.

5.2.2.2 FINANCING COSTS

For the purposes of this study, the estimated annual financing costs, as shown in Table 3, were developed on the following basis:
- 25 year amortization period
- 5 year term
- interest rate of prime plus 1% (prime rate = 12%)

The figures shown show financing costs for all items including land. Acquisition of the required land through purchase or other means has been assumed since Devon Holdings has indicated that they will not consider leasing their property. If the necessary lands could be leased, this would result in a slightly higher (+5%) financing cost, assuming an annual lease rate of prime plus 2% on the market value of the land. If a 35-year amortization period were used, the estimated annual financing cost would be reduced by about three percent.

5.2.2.3 OPERATING COSTS

The estimated annual operating costs shown in Table 3 have been obtained by grouping and rounding of comparable figures shown in Table 2. Generally, operating costs have been developed for all new areas and any existing areas that have been renovated.

5.2.2.4 REVENUES

The estimated annual revenues for the commercial components of the project have been shown in Table 3. These areas are the Commercial Retail Units (CRU's) located in the Union Station Building and the Bus Terminal. In estimating the potential CRU revenues a 100% occupancy rate has been used because of current market conditions.

While not included in Table 3, other potential sources of revenue do exist. These revenues, while smaller, might include charges received for:

.1 Providing airport and/or hotel bus shuttle stand
.2 Providing taxi and tour bus stands
.3 Locker rentals
.4 Car rental booths
.5 Direct phone links to hotels
.6 Sign advertising within the terminal
.7 Tourism display signs within the terminal

An estimated annual revenue has also been identified for the underground parking garage. This estimate of revenue is based on the following:

.1 Estimated 1986 terminal passenger volumes
.2 40% of terminal arrival/departures by private auto
.3 1.5 passengers per auto
.4 50% of wellwishers and 100% of greeters use underground parking
.5 50% of parkers stay 0-30 minutes, 50% stay 30-60 minutes.
.6 Half of stalls not normally used by short term parkers assigned to monthly users.

Consideration should be given to assessing the feasibility of constructing an additional parking level within the bus terminal. This option may become viable if employment related development occurs nearby, such as in the East Yards.

5.2.2.5 ECONOMIC IMPACTS OF PROPOSED TERMINAL

Various economic impacts would likely occur as a result of the construction and operation of the proposed terminal. These impacts include:

.1 Direct effects: consisting of the expenditures made from the construction and operation of the terminal for the purchase of labour, goods and services. These effects would be received by the residents of Winnipeg and Manitoba.

.2 Indirect effects: consisting of the expenditures captured by other local industries which will supply goods and services to the project. In many cases, the successive purchase of goods and services from one local company by another produces successive rounds of respending in the economy.

.3 Induced effects: consisting of the effects created in the economy by persons receiving income either directly or indirectly from the project and then spending this income locally on the purchase of consumer goods and services. As with the process described for indirect spending effects, this added demand created for consumer goods and services gives rise to further but successively smaller rounds of spending and respending until the money is withdrawn through taxation and purchase of imports.

.4 Revenues will be received by the Federal, Provincial and Municipal governments through taxes levied against the economic activity generated through direct, indirect and induced expenditures associated with the project.

In this section we have estimated the economic impact as it relates to the direct, indirect and induced construction employment of the terminal. Information received from Transport Canada, Federal Department of Regional Industrial Expansion and Tourism Manitoba was utilized in developing these anticipated effects.

Tourism Manitoba Model

Input: $23,635,000.00 Project Construction Cost

Output:
.1 Direct Construction Employment - 352 person years ($67,200.00 construction cost/person year direct employment)
.2 Indirect and Induced Construction Employment - 334 person years (.95 person years for each direct job)
.3 Indirect and Induced Household Income - $8,206,000.00 ($0.94 for each dollar of direct wages/salaries and average annual salary of $24,800.00).

Transport Canada Model (The Informetrica Model TIM)

Input: $23,635,000.00 Project Construction Cost

Output:
.1 Total direct construction employment and indirect and induced employment, nationally, is expected to be about 750 person years.

.2 Gross National Product is expected to increase by about $36 million
.3 Government net revenues (increased revenues and decreased expenditures) would increase by about $17 million

Federal Department of Regional Industrial Expansion Model:

Input: $23,635,000.00 Project Construction Cost

Output:
.1 Direct Construction Employment - 314 person years ($75,200.00 construction cost/person year direct employment)
.2 Indirect and Induced Employment - 345 person years (1.1 person years for each direct job)
.3 Federal Government would benefit from the development by:
  - Federal Income Tax
  - Federal CPP/UIC
  - Savings in UIC Payments
  - Sales Tax on Construction material
.4 The Provincial Government would benefit from the development by:
  - Provincial Income Tax
  - Sales Tax on Construction Material
  - Retail Sales Tax
.5 The City of Winnipeg would benefit from the development by:
  - New Property Tax
  - New Business Tax

All models indicate that most of the employment would take place locally or within the Province.

5.2.2.6 SUMMARY

Table 3 presents a summary of capital costs, financing costs, operating costs and revenues. The annual revenue from the carrier areas of the bus terminal has not been estimated as part of this study, as this would necessitate that the carriers reveal financial information regarding revenue from their operations. Due to the fact that this study will be made available to other agencies and competing companies, the carriers understandably did not release any information regarding revenue from their operations. Discussions regarding project financing are expected to take place after the completion of this study. It should be noted that in order to make the Bus Terminal component of the development (Item 2b in Table 3) financially self-supporting, a lease rate of approximately $21.65/s.f./year would be required from the carrier areas (total area = 144,761 s.f.). This lease rate would increase to about $25.40/s.f./year if the cost of financing all the land purchases was included.

It seems apparent that these rates are in excess of what might be reasonably expected to be paid by the carriers for their space, and in order for this portion of the development to be financially feasible, additional sources of revenue and/or funding would be required.

For reasons similar to those stated above, no revenues were identified for the carrier related areas of the Union Station Building and the undertrack concourse.

In line with the above, estimated annual commercial revenues in Table 3 have been supplied for only those areas for which revenues can be accurately assessed.

5.2.3 SOFT BENEFITS

It is obvious that there are many benefits that would arise from the construction of the Multi-Modal Facility that are not related to economics. Some of the more important benefits are discussed below.

5.2.3.1 BENEFITS TO CARRIERS

The construction of this facility would undoubtedly have a major positive impact on the image of both carriers. The image of the Rail and Bus Carriers is of utmost importance to their success as a business. Operations must not only be efficient, they must be seen to be efficient. The design as shown in the development plan would definitely enhance the image of efficiency. It would also be a clean, open, up-to-date facility designed with comfort, efficiency and security in mind. It is possible to completely reverse some of the negative connotations of rail and bus travel facilities that presently exists in the minds of some members of the public by careful design of this new facility.

For the bus carriers, this facility would provide the added space that is essential for their future growth. The problems that currently exist on the present bus station site, with the neighbours of the bus depot complaining of fumes and noise, would not exist on this site. This is an ideal site from that viewpoint. In addition, the direct access to a future Southwest Transit Corridor will increase the speed and efficiency of getting in and out of the City for some of the bus routes.

For the rail carriers this new and greatly enlarged facility also has the potential of improving the image of rail travel in the minds of the travelling public. It would also greatly increase the numbers of people passing through the station which would increase the value of VIA's in-station advertising, rail travel bureau, etc. It would also increase the potential of doing the necessary renovations to the ground floor area of the station and improve the market value of the commercial lease spaces that would be possible sources of revenue for VIA Rail.

The airport link facility would also be a boon for all three carriers. The increased ease of these inter-modal connections would undoubtedly have an effect on the numbers of people who might consider public transportation rather than automobile transportation for some of their travel needs.

5.2.3.2 BENEFITS TO THE TRAVELLING PUBLIC

The benefits to the travelling public are primarily related to convenience, efficiency and comfort. It has been stated in Phase I of this study, that the importance of Inter-modal connections to public transportation in Manitoba needs to be established through specific surveys related to this point. There is no doubt however, that the present locations of the bus, rail and air facilities do not encourage intermodality. The added convenience provided by the adjacency of the bus and rail terminals together with an airline link would undoubtedly be advantageous to the travelling public in terms of convenience and travel planning.

In terms of comfort there is no doubt that some of Winnipeg's public transportation stations are substandard when compared to other facilities in Canada and elsewhere in North America. The construction of this new facility would vastly increase comfort, cleanliness and security which are essential for most members of the travelling public.

Access to tourist information, services and amenities, would also a major benefit to the travelling public. Transit buses, airport shuttle, tour buses, car rental and taxis would all be available at the Multi-Modal Facility. Hotel information, rail and telephone access, rail and bus travel information, tourist displays and information, as well as a complete range of amenities such as restaurants, gift shop, drugstore, bank, etc., would make this an ideal public transportation facility for the general public.

5.2.3.3 BENEFITS TO GOVERNMENTS

Those levels of government which allocate funds to tourism development would be better able to concentrate much of their funds related to tourist information more effectively at this focus of tourist arrivals. Of course, many tourists arrive in Winnipeg by other modes, i.e. car and airline arrivals, however the concentration of bus and rail arrivals as well as the East Yards tourism attractions make this an ideal setting for a concentration of tourist information and services.

Another advantage to the Federal Government especially (but also to other levels of government) is that this Multi-Modal facility would reinforce and strengthen efforts by the Government and private sector to develop the East Yards. One of the traditional problems of development of the East Yards has been the visual and physical barrier that the Mainline tracks present.

While this project cannot eliminate those problems entirely, it can become a gateway to the East Yards visually as well as physically.

Physically, such a facility would bring large numbers of people into the area daily. Many of these people as mentioned would be tourists who would have a definite interest in touring the facilities in the East Yards if access to them was convenient. It is a logical match of a tourist arrival point and a centre of tourist activity. In addition the South West Transit Corridor, should it be constructed, would allow an excellent overview and visual access of the facilities in the East Yards.

Another important consideration in this regard is the fact that as shown on our development plan elevation, the building as it stretches across York Avenue can form an impressive vehicular gateway to the East Yards. In summary, it seems there is a natural symbiotic relationship between the Multi-Modal facility and the East Yards tourist development.

Another indirect but important benefit to the various levels of government is that this Multi-Modal facility would strengthen and give added value to the dollars expended on rail and road infrastructure through the increased use of bus and rail travel modes that it will help encourage.

5.2.3.4 BENEFITS TO WINNIPEG'S URBAN PLANNING

This new location for the bus depot and the creation of a larger Multi-Modal facility in this area along south Main Street has a number of distinct advantages for Winnipeg's Downtown Core Area. The facility would act as a sound buffer between the railway tracks and Main Street, increasing the attractiveness of Main Street land for other developments. It is a good use of this land which may otherwise go unoccupied for years due to the sound problem associated with the mainline tracks. It would help encourage the development of the South West Transit Corridor due to the added use of the Corridor by intercity buses. It would give added vitality and life expectancy to Union Station, which is one of Winnipeg's most impressive interior public spaces, as well as being an outstanding example of historic Winnipeg architecture. The facility would also act as a pedestrian gateway to the East Yards at Broadway Avenue as well as the vehicular gateway at York Avenue mentioned above.

There are also advantages to businesses in the downtown area and North of Portage Development. These businesses could direct their advertising and promotion activities to this concentration of visitors at the facility. It has been mentioned that the businessmen may even feel that it would be an economic advantage to run a shuttle bus service from the Multi-Modal Facility to the North Portage Development and other areas of commercial activity. Creative businesses could use this concentrated "captive market" to great advantage.

In terms of traffic planning, this location for the concentration of bus traffic has many advantages. It is on the edge of the downtown area and therefore still a valid location in terms of delivery of bus passengers to the downtown area, while avoiding the traffic and pollution congestion of buses on Portage Avenue or any of the other streets at the heart of Winnipeg's core area.

APPENDIX

A-1 MINUTES OF MEETINGS

The following set of minutes are of meetings held between the consultants and the members of the Advisory Committee. They took place in August 1985 as part of Phase I of this feasibility study. The purpose of the meetings was to gather information related to the Multi-Modal project, and allow us to ascertain the priorities and concerns of the various agencies represented by the Advisory Committee members. A summary of each interview is found in the body of this study in the Phase I section.

MINUTES OF MEETING
CNR - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

12 August 1985

present were:	Representing:
Ray Rybuck	CNR
Jim Kacki	Gaboury Associates
Steve Topley	Delcan Limited

Mr. Rybuck was authorized to meet with the Consultants in place of Mr. Frank Campbell, who is on holidays.

The purpose of the meeting was to discuss:

a. East Yards Developments
b. CN facilities in and around Union Station
c CN concerns re/a Multi-Modal Facility

The first point of discussion was the recent announcement by Federal minister Jake Epp regarding a development plan for the East Yards in conjunction with CN. Mr. Rybuck indicated that due to confidentiality and that the fact that the Minister would be making further announcements, he would not be able to go into detail on the proposed development. No more announcements would probably be made by Mr. Epp regarding details of the plan for one to two months. However, Mr. Rybuck was able to outline some of the major areas of the plan that would have bearing on our study. He also indicated that it was the opinion of CN that this conceptual development plan showed a great deal of promise and was likely to proceed. He indicated that a reasonably fast start could be made on the development but that it would proceed as a long term plan. The major components of the plan, would likely be a residential/commercial mix with the emphasis, depending on market demand, on the residential component.

The York/St. Mary Avenue extensions would be accomodated in plans for East Yards Developments. Funding for these extensions would not be from CN but Provincial and Federal funding would likely be involved.

The ARC Interpretive Centre could also form a part of this plan. The most current thinking is that the location of this interpretive Centre would not be at the foot of the Provencher Bridge, but probably more towards the junction of the Red and the Assiniboine. The ARC Interpretive Centre would be a part of the Parks Canada proposal for a River Bank Park at the confluence of the Red and the Assiniboine. Land for this Park, has not been yet transferred from CN ownership. A tentative boundary line has been discussed and would run from the most easterly of the two railway bridges (at the confluence of the Red and the Assiniboine) along the river bank, up to the land recently expropriated by the Core Area Initiatives on the south side of the foot of Provencher Bridge (see attached diagram).

Plans for the existing buildings on the East Yards Site were then discussed. The freight sheds to the north of the site are proposed to be demolished. The power house directly behind Union Station, is also proposed to be demolished and replaced by a smaller facility which will serve Union Station and the tracks. The location of this new facility will be either in the basement of Union Station or appended to Union Station. Plans for the Engine House, (the building closest to the forks of the Red and the Assiniboine) are undetermined at this time. The condition of the this building is rather poor, and it's continued existence would depend, in part, on Parks Canada plans for the River Bank Park. There are three other buildings on the site. The garage is presently used for storage, the CN Training Centre and Fitness Centre includes some storage and repair facilities and a four floor warehouse is presently minimally used. However, it is anticipated that some attempt would be made to retain these buildings as part of the new development.

The southwest transit corridor route was then discussed in relation to the new development plan. It was Mr. Rybuck's opinion that the latest thinking on the southwest transit corridor, was that it would run behind the Union Station at track level utilizing the area presently occupied by tracks 1 and 2. VIA Rail would than have use of tracks 3,4,5 and 6, while CN would have the use of the 2 main line tracks that run to the east of the train shed at high level.

The Consultants then asked whether a service road would be included on the east side of the main line running in a north south direction. Mr. Rybuck stated that it was possible that such a service road would still be needed to give access to the facilities at the rear of the track area. However, this decision was not yet finalized. Access to the new development would be via the York/St. Mary's extensions on the north side and possibly by a Main Street connection near Assiniboine Avenue on the south side. This, however, would require some study with regard to location relative to Hudson Bay Company land and CN owned land in this location. Service road access between the Union Station and the Hudson Bay House Building would probably remain in generally the same location as the presently existing service road.

The Consultants then asked about CN facilities under the tracks. Mr. Rybuck replied that the main CN facility under the tracks was the vehicle pool garage in the south end of the under-track building. While this facility is presently used, a new location could be considered when developments in the East Yards have been given further consideration. Other facilities under the tracks are for Via use.

CN facilities within Union Station were discussed, and a tour of those facilities was conducted. The 2nd, 3rd and 4th floors of Union Station contain CN administrative facilities. The 4th floor contains the Engineering and Accounting Departments. The 3rd floor contains the Vice-President's suite, Research, Steno Pool, Transportation Department, Industrial Relations Department, and Equipment Administration, among other facilities. The 2nd floor, is also composed of similar office areas with the exception of an area north of the Rotunda and east of the court yard, which is an operational area containing dispatch facilities. The controllers, in these facilities, moniter all train movements in an area roughly from the Lakehead to Alberta. This function would be difficult to relocate, due to the extensive nature of the wiring and electrical connections associated with the control boards. The main floor of the building, is composed primarily of VIA Rail passenger facilities and concessions with the following exceptions:

1. in the south half of the main floor are CN open office areas,
2. in the northeast section of the building CN's medical facilities are located as well as CN's Accident Prevention Office.

Mr. Rybuck stated that if the station were to undergo renovations to accomodate a Multi-Modal facility, CN would be needed to give up its space on the ground floor and possibly much of the 2nd floor to accomodate those facilities. The basement of Union Station, is composed of many small rooms and corridors with the original tile partitions. There is a large amount of storage space on this floor as well as some operational facilities, such as CN computer installations, electrical relay room (for the dispatch facilities on the 2nd floor) and the kitchen for the main floor restaurant. A boiler room and transformer room are also located in this area. Mr. Rybuck stated that the structure of the basement was steel columns and beams encased in concrete, and the tile partitions were non-structural. He also stated that while some storage areas could be available for re-use if required by a Multi-Modal facility, there were 4 areas that would be more difficult to relocate. These were:

a. relay electrical equipment for dispatch facilities
b. computer facilities
c. mechanical/pumping facilites
d. transformer room

The station building is an office building as much as a station. Conversion of the station to a Multi-Modal facility would require represent of space that CN would lose, and in order to maintain a cohesive administration would likely require a separate building for CN.

The concept of Multi-Modal facility feasibility was then discussed in relation to the fact that the land for the facility was owned by CN. Mr. Rybuck stated that any development of a Multi-Modal facility east of the tracks would not be looked upon favorably as it would conflict with residential land uses proposed for the East Yards which uses are separate from the proposed development announced by Mr. Epp. Mr. Rybuck did note, however, that if we as Consultants proposed such a location as an option then it might be considered, provided that it was in harmony with the proposed development. However, he suggested that this was a remote possibility. A location west of the tracks, was much more attractive to CN due to the fact that it did not interfere in any way with CN's proposal for the East Yards.

Mr. Rybuck also stated that CN had acquired much of the land north of Union Station and east of Main Street for development purposes. CN would therefore be willing to consider their involvement in a Multi-Modal facility on this land in one of 4 ways:

1. Outright sale of Land.
   Mr. Rybuck suggested that this was not the most favorable direction unless it was part of a sale package that included the Union Station building.

2. Participation by CN in the development through ownership and share of revenues.
   This was also not the most favorable direction due to the probable low revenue returns.

3. CN as developer - in this case CN would build the facilities and lease the buildings to the Multi-Modal facility tenants. Mr. Rybuck suggested that this is not likely to be an attractive investment for CN.

4. CN would lease the land occupied by the Multi-Modal facility to the bus and train carriers who would build their own building.

All of these options hinge on the ownership of the station which is still in question. At present CN owns the station, but negotiations have been going on with VIA Rail for purchase of the building. Land prices in that Main Street strip were then discussed. Mr. Rybuck stated that land prices were, in this area, not easily determined, however as an example, he stated that the Empire Hotel site cost in the area of $1,000,000.00 at the time of purchase.

Confidentiality of the preceeding information was then discussed. Mr. Rybuck stated that while most of the information was public knowledge, it would be preferable if we would show CN a copy of these Minutes before the information was distributed to other Advisory Committee participants.

Jim Kacki, Associate
Project Director

JK/rm

cc Ray Rybuck (CNR)
cc Steve Topley (Delcan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
D.R.I.E -GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

13 August 1985

Present were:	Representing:
Anthony Reynolds Regional Executive Director	Department of Regional Industrial Expansion (D.R.I.E)
Garry Hosey	D.R.I.E.
Herb Schulz	D.R.I.E.
Jim Kacki	Gaboury Associates
Steve Topley	Delcan Limited

The interest of D.R.I.E. in a Multi-Modal facility at Union Station, Winnipeg was discussed as it relates to the following two aspects of the departments work:

.1 The Canada-Manitoba Subsidiary Agreement on Urban Bus Development. Under this agreement D.R.I.E. is involved in a demonstration project to investigate a prototype bus transportation system (and the design of new bus technology for that system). The S.W. transit corridor is considerred as a possible vehicle for the demonstration project. The funding of this program is not yet finalized.

.2 Due to its involvement in the Downtown Winnipeg Redevelopment, D.R.I.E. is providing staffing and services to guide the conceptual development of East Yards planning on behalf of the Federal Government.

As part of this responsibility D.R.I.E. is overseeing the work of planning consultants (Smith Carter Partners, Architects), who are developing plans for a large part of the site devoted to public facilities. These plans are preliminary at present and are not available for review. Mr. Reynolds indicated that we would be able to review the plans, as part of our study, in September. It was indicated that ownership of land for this public development would be transferred from CN as a crown corporation to another public entity (as yet undetermined).

Mr. Reynolds indicated that there are three other parcels of land that form the East Yards Development.

.1 Riverside parkland to be developed by Parks Canada and ARC. This land stretches from the most easterly railway bridge, along the river north to the former B.A.C.M Site expropriated by the province using C.A.I. funds. The "Interpretive Centre" would be part of this land development.

.2 Former B.A.C.M. site at the foot of Provencher Bridge (the function of this land is not finalized at present).

.3 CN controlled development land. The remainder of the East Yards land would remain under the control of CN. The development of a multi-modal center would be affected most directly by plans for this area since it is directly adjacent to Union Station.

Although the four parcels of land are under separate ownership or control, the development plans will be co-ordinated. Also, the boundary lines between the parcels are not at present legal boundaries (with the exception of the C.A.I. expropriated parcel) and the intention is to create one unified development rather than three or four separate developments.

Jim Kacki, Associate
Project Director

JK/rm

cc Anthony Reynolds (D.R.I.E.)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
CORE AREA INITIATIVES - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

13 August 1985

Present were:	Representing:
Jim August	Core Area Initiatives
Jim Kacki	Gaboury Associates
Steve Topley	DeLCan Limited

The following points were discussed regarding the possible effects of the C.A.I. Program on the development of a Multi-Modal facility in the vicinity of the East Yards Development.

The former B.A.C.M. site at the foot of the Provencher Bridge was expropriated by the Provincial Government using Core Area Initiatives funds under C.A.I. Program 8 (East Yards Development). It is the intention of C.A.I. to allow Parks Canada to develop plans for this parcel in conjunction with its plans for the approximately 10 acres of land that is scheduled for transfer from CN to Parks Canada.

(Further discussions with the land acquisitions branch indicated that while the B.A.C.M. site, and others in the vicinity have been expropriated by declaration of expropriation, the province has not filed for issuance of title in case of abandonment of ownership plans for a portion of that land).

Discussion was then held on the possibility of using some of the remainder of C.A.I. Program 8 funds for land purchase or other means of assisting the development of the proposed Multi-Modal Center.

Jim August stated that of the approximatively four million dollars left in Program 8 after the land expropriation, one and a half million had been transferred to other programs leaving approximately two and a half million for East Yards projects. There are certain factors that would indicate that using the money as seed money for the Multi-Modal Center was not a strong possibility.

.1 Management board emphasis is at present on the forks portion of the East Yards close to the riverbank.

.2 The remaining funds should be allocated by November 1985 in order to be committed by March 1986, due to the expiry of the Core Area Initiative mandate.

.3 The remaining funds may be depleted by a number of smaller projects such as a new road access to the Riverbank Park from Provencher, etc.. Parks Canada has approached the C.A.I. to provide such an access.

Not withstanding the above mentioned problems, however, Mr. August mentioned that if a case could be made for realistically using C.A.I. funds as necessary seed money for the Multi-Modal facility, then it may be considered. The chances would also improve if the life of the C.A.I. was extended, which would enable the Management Board to spend the time to more accurately assess the need of each of the various East Yard projects for C.A.I. "seed money" funding.

When questioned by the Consultants on the eligibility for Program 8 funds of the Multi-Modal facility proposal located west of the tracks (outside the key site boundary), Mr. August replied that the key site boundaries were not legal boundaries. If Management Board felt that such a proposal was in the interests of East Yards Development that it may be eligible for consideration under Program 8.

Jim Kacki, Associate,
Project Director

JK/rm

cc Jim August (C.A.I.)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
VIA RAIL - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

14 August 1985

Present were:	Representing:
Harold Murray	VIA Rail
Jim Kacki	Gaboury Associates
Steve Topley	DeLCan Limited

Mr. Murray discussed VIA Rail's attitude towards a Multi-Modal Centre at Union Station. He stated that VIA supports and encourages the concept of Multi-Modal facilities and considers that they would be advantageous to all modes of transportation involved. He considers that Winnipeg is an ideal location for such a facility, since we have all the ingredients necessary for success. The station is ideally located for bus transportation to and from the city, especially considering the future developments of the southwest transit corridor and the St. Mary/York extensions. The location is close to downtown activity centres, while also having large areas of land available for bus depot development, which is a large space user. Most run down buildings in the area have been demolished and many properties are being upgraded, which enhances the image of the area as an entrance into the city for incoming passengers. If Union Station becomes a major transportation centre, it would also aid in the feasibility of surrounding urban developments. An example of this is central station in Montreal, which helps to support Place Ville Marie and developments surrounding it.

Discussion was then held on the extent to which joint use space could be utilized in a Multi-Modal Centre. Mr. Murray responded that some joint use of facilities could be considered. Common public areas could be used and paid for by both bus and train carriers, possibly resulting in capital cost savings. These areas would include; waiting areas, lounge areas, washrooms, restaurants, public amenities and information centres. When asked whether common ticket and baggage areas, including common staffing, could be considered, Mr. Murray replied that this would probably not be practical or desireable and should not be considered. Mr. Murray sited precedents in other countries that would suggest that co-ordination of timetables between the various transportation modes would promote the use of those modes by the travelling public. VIA Rail would be willing to consider such a co-ordinated timetable with the bus carriers.

Mr. Murray stated that the Gare du Palais, which is a Multi-modal Centre in Quebec City, is opening this year. Other cities in which a Multi-Modal Centre is being considered are:

1. Trois Rivieres, Québec
2. Lévis, Québec
3. Moose Jaw, Saskatchewan
4. Mel Ville, Saskatchewan
5. Regina, Saskachewan
6. Vancouver

VIA Rail's space requirements within the station were then discussed. There is no current space shortage for VIA facilities in the station. VIA would like to relocate their administrative functions from the Wawanesa Building into the station, but this depends upon CN's requirements for administrative space in the station that they are presently occupying. VIA Rail currently is renting 21,000 sq. ft. net of office space in the Wawanesa Building. This space houses approximately 150 employees. There are also approximately 50 employees within the station. VIA's current plans for station improvements include upgraded on board services facilities, a new integrated ticket-baggage handling system, and paved parking areas. New weather protected escalators have recently been installed between the passenger concourse and the track area. Murray Brown of VIA Rail can supply further details regarding VIA's space requirements in the station.

With regards to ownership, leasing, and financial management of a Multi-Modal facility, Mr. Murray indicated that VIA would be open to considering a number of options, depending discussions with all the parties involved.

Jim Kacki, Project Director

JK/rm

c.c. Harold Murray (VIA Rail)
c.c. Steve Topley (DeLCan)
c.c. Arjan Chandan (Transport Canada)
c.c. Jim Wallce (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING **14 August 1985**
GREY GOOSE BUS LINES - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

Present were:	Representing:
Bernard Thiessen	Grey Goose Bus Lines
Jim Racki	Gaboury Associates
Steve Topley	DeLCan Limited

Mr. Thiessen presented his views on the advantages and disadvantages of a Multi-Modal terminal with VIA Rail and bus carriers as participants. Mr. Thiessen stated that there would probably be some transfer of passenger between modes, although the amount is probably minimal. The exact numbers are unknown at present. The transfer of passengers between the airlines and bus carriers is an important inter-modal link for Grey Goose. The advantages of a bus rail inter-change are also dependent upon the level of service and timetabling accuracy provided by the rail carriers.

Mr. Thiessen then expressed his concerns with regard to a new location for bus facilities. At present, the bus carriers are located in the centre of the downtown area. A location at Union Station would be further from the shopping and Winnipeg Transit facilities than at present. An informal survey of user reaction to the Union Station location carried out by Grey Goose did not result in any positive reaction. Many users asked why the bus station would consider moving. Mr. Thiessen stressed however, that this was not an extensive survey, but rather an informal gathering of user comments as they arose. The Consultants then asked Mr. Thiessen for his opinion on various locations that were possible for bus loading in the areas adjacent to Union Station. The two primary options were:

.1 West of the tracks and north of the station.
.2 East of the tracks.

In both instances, bus ticket facilities and waiting areas would be on the main floor of Union Station. Mr. Thiessen responded that the location of bus waiting areas east of the tracks would have a major disadvantage due to the distance that passengers would have to walk between the ticketing areas and bus loading areas. The location west of the tracks would have the problems of a confined site, which would affect bus turning radiusses and layout of bus loading areas.

Mr. Thiessen was then asked about the adequacy of existing facilities in the present bus terminal location. He replied that some areas are quite constrained and that thought is being given to expanded facilities. Space for passenger waiting areas is at present strained at peak periods. Daily peak periods occur in the morning between 7:00 a.m. and 10:00 a.m. and in the afternoon between 4:30 p.m. and 6:30 p.m. At present, 16 bus loading lanes are used. It is anticipated that in 25 years, 25 lanes may be required. This figure, of course, depends on a number of unknowns such as city growth and transportation pattern changes. Another area of presently constrained space is the parcel express area, which is too small to accomodate even the present demand. 2 separate freight facilities are needed in any new facility, one for Greyhound and one for Grey Goose. Double the area for freight facilities would be a reasonable assumption for future planning.

Mr. Thiessen was then asked about the bus carriers plans for the future with regard to their present existing location. Mr. Thiessen listed a number of possible scenarios and said that planning would be underway this fall by the bus carriers to determine their possible courses of action. Some of the options mentioned were:

.1 To stay at the present location and extend the current lease.

.2 To stay at the present location and purchase the facilities.
Both of these options would presumable entail an expansion of facilities at the site.

.3 To explore other potential sites for the bus terminal.

Discussion was then held on the ways in which space could be jointly used by all carriers in a new Multi-Modal facility. Mr. Thiessen expressed the opinion that the use of common ticket agents would not be looked on favorably since it would mean that the carriers would lose control over those agents. Separate ticket facilities for the bus and rail carriers would be essential. Commercial and service spaces could be jointly used as well as waiting areas, washrooms, etc.

Some of the facilities that would be required in a Multi-Modal Centre, would be:

- .1 Barber Shop
- .2 Newspaper/Candy Stands
- .3 A good full service Restaurant
- .4 A fast food Cafeteria
- .5 A Gift Shop
- .6 Travel Agency
- .7 Drug Store
- .8 Possibly Professional Offices
- .9 Possibly freshen-up facilities

Parking facilities would also be an essential component of a new bus terminal. Bus maintenance facilities would not form a part of the new terminal since large amounts of land would be needed for this function. The existing maintenance facilities, which accomodates approximately 60 Grey Goose buses, would probably remain.

Mr. Thiessen also stated that past experience has shown that a new modern facility would mean a probable increase of 15-25% in terms of passenger volume. He also stated that Grey Goose would be willing to consider being a part of a Multi-Modal Centre at Union Station, but only if the serious draw-backs that he has mentioned could be overcome.

Jim Kacki, Associate
Project Director

JK:rm

cc Bernard Theissen (Grey Goose)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways and Transportation)

MINUTES OF MEETING
PARK CANADA - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

15 August 1985

Present were:	Representing:
Henry Turik	Parks Canada
Jim Kacki	Gaboury Associates
Steve Topley	DeLCan Limited

Mr. Turik described Parks Canada's involvement in East Yards planning. Their primary involvement is in the development of 10 acres of land which will be tranfered from CN Ownership. This land lies on the North Forks of the Red and the Assiniboine. Parks Canada is also the implementation agency for the ARC project in the same location. This project was originally planned as an interpretative centre building. The funding available to Parks Canada from all sources for the development of this park and interpretative centre is 3.5 million dollars. In addition to the 10 acres of CN land, Parks Canada is also responsible for the 3.5 acres of Core Area Initiatives land which was expropriated at the foot of Provencher bridge.

Mr. Turik outlined three major development options that Parks Canada is considering.

The first option is the development of an interpretative centre building on the Core Area Intiatives land at the foot of Provencher Bridge. This option assumes very little other development in the East Yards and would therefore be located close to the major access on water Street. It would be relatively low profile, therefore, which would indicate that it should only be open for the summer months.

The second option assumes a significant park development along the banks of the Red and Assiniboine Rivers. This option may include renovation of the existing CN engine house into an interpretive centre. This engine house has historic value according to some historians, but is in very poor condition and would need significant funds for its renovation.

The third option assumes a major development of most of the East Yards with tourist facilities, housing, and other people-oriented developments. It would be a major facility for the city of Winnipeg and would attract a large number of visitors both winter and summer. Under this scenario, the $3.5 million would not be sufficient for an adequate park development and an interpretive centre that would handle the number of visitors anticipated. Therefore, this option assumes major landscape development possibly including interpretive landscape elements.

All of the funds would be required for major river side landscape development and therefore, no interpretive centre building would be built at this stage. An interpretive facility of appropriate size would be built when funds became available at some future date.

The concept of a temporary winter interpretive facility inside Union Station, as initially proposed by ARC, was dropped from consideration approximately 2½ years ago. However, if the third development option is implemented, the possibility of an interpretive facility in Union Station may be considered again in that light. Other than this minor component, no Parks Canada funding could be considered for any part of the Union Station development due to the very limited nature of the funds.

Parks Canada in also interested in the Union Station as an historical building and would be supportive of restoration efforts as part of a Multi-Modal project. However, here again no Parks Canada funding should be anticipated since Parks Canada's role in a situation such as this, is one of advisor and not funding agency.

Mr. Turik also mentioned that a major marina and docking facilities and water taxi feature was being considered for the East Yard Site and should be taken into account with a possible linkage into the Multi-Modal facilities.

Lombard North Consultants are currently preparing plans of the 13½ acres for Parks Canada. We will be able to review those plans some time in October.

Jim Kacki~~, Associate~~
Project Director

JK:rm

cc Henry Turik (Parks Canada)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
MANITOBA DEPARTMENT OF BUSINESS DEVELOPMENT
AND TOURISM - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

16 August 1985

Present were:	Representing:
Bernard Foth	Manitoba Department of Business Development and Tourism
Jim Kacki	Gaboury Associates

Mr. Foth stated that his department looked favorably on the development of a Multi-Modal Centre at Union Station as being very positive for tourism in Manitoba. Buses are integral to the development of tourism in the province, not only due to significant tourist arrivals into Winnipeg by bus, but also due to the trend towards bus tours for seniors and group tours.

Mr. Foth felt that this Multi-Modal facility, as a tourist arrival/departure point, would be complemented by the tourism pavilion planned in the East Yards by the Federal Government. Other tourist facilities in the East Yards such as the park and major docking facility would also be aided by using Union Station as a tourist arrival point. He felt that it was also important to include tourist recreational boat and waterway usage as a part of the Multi-Modal concept. There could also be significant advantage to joint use of parking facilities which would be needed by both the Multi-Modal Centre and public facilities to the rear of Union Station. Tourist information facilities would also be needed within the station to encourage longer stays by visitors.

With regard to the possibility of any department funding being included in the Multi-Modal Centre plans, Mr. Foth stated that the department may be able to assist in staffing and operating a tourist information centre. Funding for other aspects of the project would not be as clear cut. Under the May, 1985 Federal/Provincial Tourism agreement, capital support is provided for major tourism attractions. In Winnipeg, tourist attractions are funded. In rural areas tourist attractions as well as accomodation are funded.

The restaurant within Union Station, may be considered as a tourist attraction eligible for funding depending on the tourism potential of the theme or type of restaurant, however, in his opinion the station itself is not thought of as a tourist attraction and would probably not be eligible for major renovation funds. Mr. Foth also stated that in his opinion, it would be some time before development plans for this Multi-Modal facility would be implemented and that the Department of Tourism would have to assess the tourism potential of the project on an ongoing basis.

Jim Kacki, Associate
Project Director

JK:rm

cc Bernard Foth (Manitoba Department of Business Development and Tourism)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
GREYHOUND - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

16 August 1985

Present were:	Representing:
Garry Pepplar	Greyhound
Jim Kacki	Gaboury Associates
Steve Topley	DeLCan Limited

Discussion was held on Greyhound's attitude towards a Multi-Modal facility shared with VIA Rail and Grey Goose. Mr. Pepplar stated that he was not aware of any facilities shared by Greyhound and rail passenger carriers, and therefore the unknowns of the situation create cause for concern. For example: VIA Rail and Greyhound are competitiors on cross country transportation, the Toronto run and Vancouver run are the major competitive routes. Advertising of price comparisons, within the terminal itself, may also be a problem. It is not known in the long term, whether these price comparisons would be an advantage or a disadvantage to Greyhound (or to VIA Rail).

Mr. Pepplar then discussed the various options open to the bus carriers with regard to future terminal plans. He stated that they have outgrown the present facilities and would need expansion in the near future. The options, in general, are as follows:

.1 To remain at the present location (this assumes expansion in this location).
.2 To relocate to new developer built facilities.
.3 To buy land on which a developer would build new facilities.
.4 To buy land and construct facilities with the bus carrier's own resources (5 or 6 locations have already been built by Greyhound. To Mr. Pepplar's knowledge, the government has not contributed to the capital costs in any of these locations).

Discussion was then held on Greyhound's requirements for space in the new facility. Mr. Pepplar stated that both bus companies presently have 15 loading lanes and that 21 to 22 lanes are required for a 5 to 10 year projection. With regard to freight facilities, 4,500 sq. ft. are used by Greyhound at present. Mr. Pepplar estimates that 20 to 30,000 sq. ft. would be needed by both bus carriers for a 5 to 10 year projection. Separate freight facilities would be needed for each of the two companies. An ideal layout for freight facilities would entail the passenger facilities being on the opposite side of the bus loading lanes from the freight facilities, which would be at the rear of the bus loading lanes.

At present, Greyhound uses 1,400 sq. ft. of office space at the terminal, which accomodates 10 employees. This is not one of the major areas where expansion is needed at present. With regard to ticket and baggage facilities, Mr. Pepplar stated that Greyhound would not consider sharing ticket counters and staff with the rail carriers, there would need to be 3 separate ticket areas, one for Greyhound, one for Grey Goose and one for VIA Rail. Eight employee staff parking stalls are presently provided at the terminal. There is no service vehicle parking other than that provided in the freight parking area. The maximum dimension of existing buses is 40' X 8'6". A 45' bus may be planned for the future , although plans for this are unknown at present. Present buses carry 43 to 47 passengers.

Jim Kacki, Associate
Project Director

JK:rm

cc: Garry Pepplar (Greyhound)
cc: Steve Topley (DeLCan)
cc: Arjan Chandan (Transport Canada)
cc: Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING **19 August 1985**
MANITOBA DEPARTMENT OF URBAN AFFAIRS
- GABOURY ASSOCIATES
MULTI-MODAL CENTER FOR UNION STATION

Present were:	Representing:
Kent Smith	Senior Transportation Planner Department of Urban Affairs
Jim Kacki	Gaboury Associates

Mr. Smith outlined several of the department's areas of interest relative to a Multi-Modal facility at Union Station. He stated that there were no specific department programs which would have a direct bearing on this facility, but that the department had the role of co-ordinator for the programs of other departments and agencies related to the East Yards and would therefore have significant input into development plans for the Multi-Modal Centre. The areas in which the department of Urban Affairs would be involved are as follows:

1. Co-ordinator of the provinces response to proposed East Yards Development.
2. Co-ordinator of the provinces response to ARC programs.
3. Co-ordinator of the provinces input into Core Area Initiatives programs.
4. Major funding body for Winnipeg Transit (southwest transit corridor).

With regards to the southwest transit corridor, Mr. Smith stated that a number of questions are being raised with regard to the implementation of this program as well as the timing of the implementation. In the City of Winnipeg's latest 1985 to 1990 five year plan, southwest transit corridor plans have been dropped. It is therefore less of a priority for the Province than if the City had been requesting its implementation in the 5 year plan.

Original estimated costs for the corridor were in the order of $35 million. Recent cost estimates have put the final figure as being closer to $50 million or higher. As part of the Urban Bus Industrial Sub Agreement under ERDA 10 million dollars was to have been allocated for the corridor by the Province and $10 million similarly allocated by the Federal Government (order of magnitude costs). This money was also to have included technological research and development of urban bus technology. The role of Flyer Industries within this agreement has raised additional questions in regard to allocating these monies.

Despite these questions, Mr. Smith stated that the original premise for the southwest transit corridor (extremely heavy two-way use of the Pembina Highway corridor) is still a valid one. This would indicate that although the timing for the southwest transit corridor is questionable at present, it is still very likely that the corridor, or a similar project, will proceed at some time in the future. Therefore, our study design should take into account all alternate locations for the corridor as it passes Union Station.

In discussing the Core Area Intiatives, Mr. Smith stated that the feasibility of using CAI program 8 funds is quite low due to the March 31, 1986 deadline. The remaining projects will likely be priorized, with regard to need for existing funds, and the pressure will be to use these funds on existing or pending projects. However, if the Core Area Initiatives program is extended or if a new program similar to the Core Area Initiatives is begun, then there is a possibility of funding for East Yards related projects due to Federal Government's interest in the area. The Province of Manitoba has already suggested that it would commit a similar amount of money to a renewed agreement as it had for the existing Core Area Initiatives agreement.

With regards to ARC projects, Mr. Smith stated that it was unlikely that a Multi-Modal Centre could utilize existing ARC funding due to the limited amount available and also to the limited lifespan of ARC. The most likely use of ARC funds, if any were to be allocated to this project, would be for the setting up of informational displays in the Union Station.

The need for a Multi-Modal Centre was than discussed in general terms. Mr. Smith stated that the Department of Urban Affairs was skeptical as to the existance of such a need. He stated that no one has demonstrated the advantages of moving the bus depot from its present location. he also stated the need for statistical information regarding transfer of passengers from one mode to another. Convenient Winnipeg Transit connections to an inter-city bus terminal were considered by the Department to be an important consideration.

Pros and cons of the existing bus depot location were then discussed. Ease of access to shopping and Winnipeg Transit facilities were a major advantage. Traffic congestion and the pollution of the University of Winnipeg environment were the disadvantages. The impact of the North Portage Development on the continued existence of the bus depot is also an important consideration. Expansion possibilities for bus facilities on the existing site will also play an important role in the assessment of this site. If the decision is made by the bus companies to relocate due to the reasons mentioned, than alternate sites within the downtown area would have to be assessed.

Jim Kacki~~, Associate~~
Project Director

JK/rm

cc Kent Smith (Man. Dept. of Urban Affairs)
cc Steve Topley (Delcan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
COMMISSIONER OF ENVIRONMENT - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

19 August 1985

Present were:	Representing:
Dave Henderson	Commissioner of Environment
Jim Kacki	Gaboury Associates

The 1968 agreement between the Metro Planning Commission (City of Winnipeg) and the CNR was discussed. The city of Winnipeg Law Department (Mr. Steele) has the plan which would show the extent of the agreement as it affects East Yards Development.
Mr. Henderson stated that, under this agreement, any development within the East Yards must be jointly agreed upon by the City of Winnipeg and CNR.

With regards to the roadway infrastructure Mr. Henderson stated that internal roads would be the responsibility of the developer. The city would be responsible for access and approach roads such as the St. Mary's/York extensions. These roads are not currently in the city's 5-year plan. However, this plan is reviewed annually and the inclusion of these road extensions would depend heavily on East Yards Development. Funding for these road extensions may include provincial and perhaps federal cost-sharing arrangements. (eg; Salter Street bridge funding agreement).

With regard to the City's attitude towards a Multi-Modal center, Mr. Henderson stated that city council had never considered the subject and therefore, had no opinion on the subject. However, Mr. Henderson stated that he personally did not see any advantage to the city in having such a facility.

Similarly with regard to location of a new bus facility, Mr. Henderson stated that city council had no official preference for location. Internal city location studies have been carried out but the private sector would be within their rights to build a bus facility anywhere in the downtown area where access would not be a problem for the Streets and Transportation Department. The City would not encourage one location over another. Mr. Henderson's opinion, however, was that a location in the heart of downtown (eg., East of Main Street near Graham Avenue), would be preferable to a location on the edge of downtown (eg., near Union Station.) Mr. Henderson suggested that moving the train station closer to downtown, possibly in co-ordination with the bus station, may be a more advantageous location for the city.

Jim Kacki, Associate
Project Director

JK/rm

cc Dave Henderson, Commissioner of
   Environment, City of Winnipeg
cc S. Topley (DeLCan)
   Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of
   Highways and Transportation)

MINUTES OF MEETING
WINNIPEG TRANSIT - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

20 August 1985

Present were:	Representing:
Peter Hague	Winnipeg Transit
Jim Kacki	Gaboury Associates
Steve Topley	DeLCan Limited

Discussion was held on four topics related to the Multi-Modal Facility and Winnipeg transit:

.1 S.W. transit corridor.
.2 East Yards development/Multi-Modal facility development.
.3 Graham Avenue Transit Mall.
.4 North Portage Development.

A. S.W. Transit Corridor

Peter Hague stated that a functional design has been completed for the entire corridor. Costing of land and construction has also been completed based on the functional plan. The latest estimate is in the order of $40 million. No final agreement has been made with CN.

Implementation is not proceeding as smoothly as anticipated and the project has been dropped from the city's five year plan. It may be revived at future annual reviews. At present there is no indication that this will happen in the foreseeable future. There has been traffic buildup on Pembina but as land development has not been proceeded with as quickly as was first anticipated, the rate of traffic growth has slowed considerably.

Originally 3 possible routes for the corridor around Union Station were being considered:

.1 On Main Street.
.2 East of the main line tracks at grade
.3 Replacing tracks 1 & 2 immediately behind Union Station at the height of the main line embankment.

The third option is Winnipeg Transit's preferred alignment. The problem with the other options are:

Option 1. Traffic congestion problems on Main street would increase the travel time from the University to the Graham Avenue destination.

Option 2. Has two major problems:
  a. The tight "S" curve and limited headroom that result when the corridor turns off Main Street and under the tracks near Assiniboine and Main.
  b. The other problem is that the corridor would then cross both the St. Mary's and the York Avenue extensions at grade in the East Yards.

These intersections would reduce the effectiveness of both streets and transitways. The consultants mentioned VIA Rail's concern with Winnipeg Transit's preferred alignment; that is that it reduces VIA's 6 tracks to 4 tracks which would eliminate any possibilities of future expansion of service. Also, VIA's need for maintenance facilities would have to be met before any reduction in the number of tracks at Union Station could be considered.

Previous discussions between the consultant and Winnipeg Transit indicated that Winnipeg Transit is open to the suggestions of having a S.W. transit corridor stop at Union Station and also to allowing intercity bus use of the corridor. Mr. Hague indicated that no policy decisions have been made, but that the City is open to discussions.

B. East Yards Development /Multi-Modal Facility Development

Mr. Hague stated that as far as he knew no major work had been done on possible transit routes to serve East Yards Developments since these developments are largely unknown at present.

Discussion of existing bus service outside Union Station indicated that 6 routes currently stop there.

1. Route 55 St. Annes
2. Route 14 St. Mary's
3. Route 52 Marion
4. Route 53 Coniston (feeder)
5. Route 29 Sherbrook
6. The free Dash bus (11:00 a.m. to 3:30 p.m. - 5 min. service)

Routes 55, 14, 52, 53 and the Dash Bus have a downtown destination on Portage or Graham Avenues.

If current plans to co-ordinate timing of the St. Mary's and St. Anne's busses are carried out, there would be a maximum off peak waiting time of 8-10 minutes, (which is better than most airport bus service). When asked about additional busses to serve the Multi-Modal facility, Mr. Hague replied that consideration would be given to this once statistics were developed indicating the level of demand generated by the facility. However, he stated that it may be possible for the demand to be met by the existing bus service. Further discussion would depend on the demand statistics.

Mr. Hague stated that if the Multi-Modal facility is developed, city transit busses should be considered as one of the modes, the importance of which should not be forgotten in the planning of the facility (eg; climate controlled integral waiting areas, etc..).

C. Graham Avenue Transit Mall

Winnipeg Transit is still considering the possibilities of enhancing Graham Avenue's potential as a transit mall. This enhancement could take the form of increased bus usage and minor improvement of facilities, to more major facility development. No specific plans for major developments have been finalized.

The South West Transit Corridor busses would all have a Graham Avenue destination, and the Corridor itself (as presently anticipated in Winnipeg transits preferred alignment) would terminate on Main Street just south of Graham Avenue.

D. North Portage Development

This development involves local re-routing of existing transit routes around the development, but no major re-structuring of routes. No re-routing would have an effect on the area around Union Station. Also, no major (or minor) transit facility is planned as part of the North Portage Development.

Jim Kacki, Associate
Project Director

Jk:rm

cc Peter Hague (Winnipeg Transit)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways and Transportation)

MEETING REPORT
DeLCan - CONSULTING ENGINEERS AND PLANNERS
FEASIBILITY STUDY: MULTI-MODAL TERMINAL AT WINNIPEG UNION STATION

LOCATION: VIA RAIL OFFICES
DATE: 20 AUGUST 1985
WRITTEN BY: S. TOPLEY

PRESENT: Murray Brown - Via Rail
Steve Topley - DeLCan

MINUTES

The purpose of the meeting was to identify and obtain what specific date is required from VIA for the study.

VIA agreed to supply the following information.

.1 Existing daily train movements to and from station as well as origin and destination and through passenger movements. This data would be broken down into VIA's five main routes.

.2 Daily and yearly passenger volumes and information on daily volume fluctuations and daily, weekly or yearly peaking characteristics.

.3 Five and ten year passenger volume forecasts with respect to the information to be supplied in and above.

.4 An assessment of the size of their existing station space for waiting administration, baggage, etc., and identification of approximately future space requirements (five and ten year) including parcel express space requirements if applicable.

.5 Existing and future volume of freight if significant.

.6 Additional facilities they might require in a multi-modal facility.

.7 Identification of existing and future number of station employees, parking facilities and service vehicles.

2. South West Transit Corridor:

Mr. Brown noted that City Transit's preferred alignment eliminated the use of Track #1 and #2 and that this left VIA with no expansion flexibility for the future. He noted that four tracks would likely be adequate for present volumes. He also noted that VIA didn't feel that there need be serious operational or safety problems in locating the two bus lanes beside the existing four rail lines. Mr. Brown said that VIA were very concerned in finding a suitable location for their maintenance facilities if East Yard Redevelopment took place.

Mr. Brown indicated that he would provide the requested information to Mr. Topley within two weeks (by September3, 1985).

The meeting was adjourned at 10:15 a.m.

MINUTES OF MEETING
NORTH PORTAGE DEVELOPMENT CORP. -
GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

21 August 1985

Present were:	Representing:
Isadore Coop	North Portage Development Corp.
Jim Kacki	Gaboury Associates

The nature and extent of functional components anticipated within the North Portage Development (N.P.D.) were discussed. None of the functions that may be associated with the Multi-Modal facility would be in competition with the N.P.D. functions primarily because of the small area of retail, commercial and office functions anticipated for the Multi-modal facility. In many other cities transportation centres have generated or reinforced dense multi-function developments around them. In the case of Winnipeg the abundance of existing and proposed retail, commercial, and office space would reduce the tendency for this to happen.

With regard to transportation planning, Mr. Coop stated that no major transportation facility is planned for the N.P.D. Available land was limited and therefore was dedicated to the primary functions of housing, retail, commercial, office and parking. Some transit routes were altered due to street closures but this would not affect transit routes in the Union Station area. Some weather protected transit bus waiting areas will be provided.

Discussion was than held on the intercity bus depot on its present site and the possibility of its relocation as part of a Multi-Modal facility at Union Station. Mr. Coop stated that the N.P.D. Corporation would not oppose the relocation of the bus depot. It will bring people into downtown, but it was Mr. Coops contention that women coming to shop at Eatons or other downtown shops would likely take a bus or car to and from the existing bus depot and therefore a slightly longer shuttle bus ride from the Union Station would not, in his opinion be a problem.

A direct shuttle bus service specifically serving the Multi-Modal facility would be a more positive option than relying on Winnipeg transit. Mr. Coop suggested that the downtown Winnipeg Businessmans Association may be willing to initiate this shuttle bus to serve their specific interests.

Jim Kacki, ~~Associate~~
Project Director

JK:rm

cc	Isadore Coop	(North Portage Development Corp.)
cc	Arjan Chandan	(Transport Canada)
cc	Jim Wallace	(Manitoba Dept. of Highways & Transportation)
cc	Steve Topley	(DeLCan)

MINUTES OF MEETING **21 August 1985**
CITY PLANNING DEPARTMENT - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

Present were:	Representing:
Len Vopnfjord	City Planning Department
Jim Kacki	Gaboury Associates

Mr. Vopnfjord outlined the recent history of bus depot relocation discussions. In the summer of 1983, the North Portage Task Force dealt with the issue of relocation due to developers suggestions that the removal of the bus depot may be a condition of their participation in North Portage Developments. Subsequent discussions singled out the adjacent Mall Hotel beverage room as the root of the problem. Since its demolition, problems previously associated with the bus depot have not been raised publicly by developers or others. The opinion has been stated that the problems are largely resolved due to the removal of the beverage room.

The only remaining planning problem with the existing bus depot location is the pollution at the University of Winnipeg, due to exhaust. This is a serious concern for the University.

Positive aspects of the location are related to the fact that it brings large numbers of people into downtown Winnipeg.

Mr. Vopnfjord is therefore ambivalent about the need to relocate the depot. He stated that since there is no compelling reason to relocated the facility, he would tend to leave that decision to the judgement of the operators.

Other factors in the relocation question are:

.1 The possible advantages of a Multi-Modal tie in with the rail carrier.
.2 Possible site constraints affecting the operator's need to expand.
.3 Possible future decisions by site owners not to extend the operators lease.

Discussion was then held on the advantages of the Union Station site as a Multi-Modal facility, should the decision be made by bus operators to move from their present site. Mr. Vopnfjord indicated that the city had done studies of alternate sites and that he favoured the Union Station site. Downtown sites were very limited due to the large amount of land needed.

The other major site which was favoured by the Authors of the study (but not necessarily by the city) was the area behind the Fort Garry Hotel. This site is now proposed for an apartment complex. The Fort Garry Hotel was supportive of the bus depot being located near it due to the increased business that would be generated. The same benefits may also be derived by the hotel from a Multi-Modal passenger facility at Union Station.
Mr. Vopnfjord suggested that this would be a benefit to the city also since it may help ensure the survival of a building with historical and architectural merit. He also stated that with the demolition of some of the run-down buildings and the addition of proposed new developments, the Broadway and Main area has the potential of being a positive factor in the overall city environment. A Multi-Modal Centre would help consolidate this development.

The East Yards plans were than discussed. It was agreed that the tourism related development would benefit from the Multi-Modal facility as a tourist arrival point.

Jim Kacki, Associate
Project Director

JK:rm

cc Len Vopnfjord (City Planning Dept.)
cc Steve Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

MINUTES OF MEETING
WINNIPEG CHAMBER OF COMMERCE - GABOURY ASSOCIATES
MULTI-MODAL CENTRE FOR UNION STATION

21 August 1985

Present were:	Representing:
Mr. Draper	Winnipeg Chamber of Commerce
Jim Kacki	Gaboury Associates

Mr. Draper stated that the Chamber of Commerce is in favour of the development of a Multi-Modal facility. He also stated that he considered Union Station to be a good location for such a facility.

Mr. Draper also suggested two concerns regarding the facility. Firstly, he felt that it was important to tie the Multi-Modal facility into the Federal Governments plans for the East Yards, as well as into any plans that Manitoba Department of Tourism might have for the area.

His second concern was with regard to the negative image of bus stations as sometimes disreputable places. The design, operation and policing of the station would have to be of very high standards.

With regard to possible related functions in association with the facility, Mr. Draper suggested that some retail/commercial facilities related directly to travellers needs would be appropriate, but that extensive retail facilities would add to the problems of the downtown area which suffers from the dispersal effect of a number of retail anchors.

Similarly, office space is currently over supplied, as evidenced by 12 empty floors in the Richardson Building, Trizecs unoccupied space etc.. Therefore, it would not be appropriate to include any office space other than that needed by participants of the Multi-Modal facility.

Easy access to shopping areas should also be ensured by frequent Dash Bus Service (or similar means), and by a large enough taxi stand for adequate service.

Easy access to shopping areas should also be ensured by frequent Dash Bus Service (or similar means), and by a large enough taxi stand for adequate service.

Jim Kacki, Associate
Project Director

JK:rm

cc W. Draper (Winnipeg Chamber of Commerce)
cc S. Topley (DeLCan)
cc Arjan Chandan (Transport Canada)
cc Jim Wallace (Man. Dept. of Highways & Transportation)

The following are minutes of a meeting held March 28, 1986 in the third floor boardroom of the Streets and Transportation Department, The City of Winnipeg, 100 Main Street.

In attendance were:

Mr. Mel Hirt, P.Eng. - Streets and Transportation Department
Mr. Ken Rosin, P.Eng. - Streets and Transportation Department
Mr. Fred Corey, P.Eng. - Streets and Transportation Department
Mr. Steve Topley, P.Eng. - DeLCan

The purpose of the meeting was to obtain comments from the Streets and Transportation Department on the Development Plan and Alternate Development Plan. These comments were not obtainable at an earlier date as there was no Streets and Transportation Department representative on the Project Advisory Committee.

Mr. Topley gave an overview of the work completed to date on the project and a detailed explanation of the Development Plan and Alternate Development Plan.

Comments made by the Streets and Transportation Department are as follows:

- requested that Streets and Transportation be directly involved in any further study or preliminary design work in an advisory capacity.
- Preferred Development Plan as it achieved access through the prebuilt section of the S.W.T.C. and, therefore, had less impact on Main Street traffic.
- Access to/egress from freight parking lot should be made using an angled entrance and exit, a minimum 50 feet apart and located as far west of the St. Mary intersection as possible.
- The York Avenue road right of way must remain clear of any supports for the second level of the bus terminal. No columns will be permitted in the York Avenue sidewalk areas.
- A fourth "activity" lane and island will be required on York Avenue east of Main Street to facilitate access into the underground parkade. This lane could then taper out over about 200' to the east of the parkade entrance.
- Pedestrians crossing Main Street at Broadway will have difficulty on the east side because of the indicated taxi and bus loading and unloading operations. The width of Main Street should be locally narrowed to four lanes northbound at the north crosswalk location.
- Strong preference that vehicle operations shown on east side of Main Street including taxi and private auto pick up and drop off, airport shuttle bus stand and tour bus stand operate at an off-street location. Present operation is poor and situation would deteriorate with future increase volumes of passengers and vehicles.

- Sidewalk width on Main Street is a minimum of 5.3 m elsewhere. This minimum standard should be maintained along the entire length of the project.

The Streets and Transportation Department requested that their comments be incorporated into the final report and that they receive a copy of same. Mr. Topley confirmed this would be done.